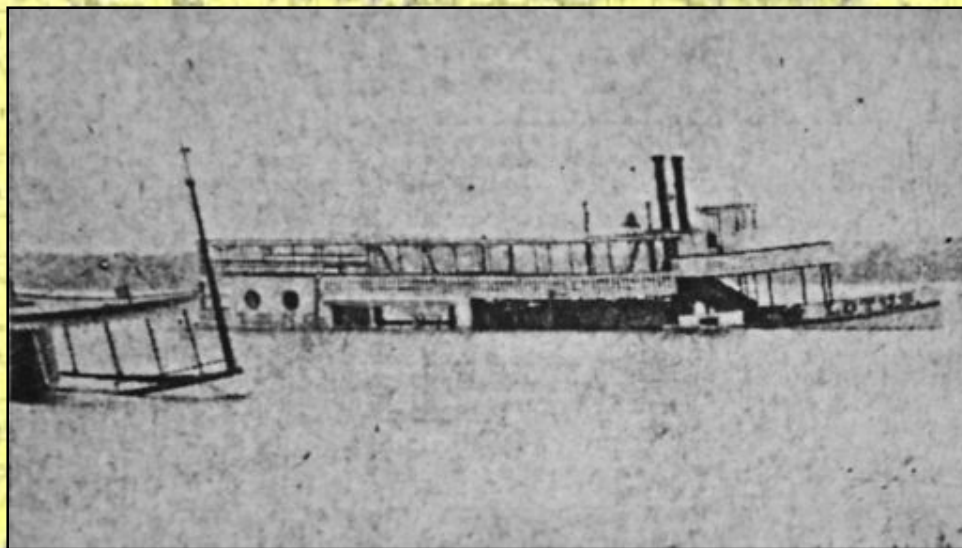


MARITIME HERITAGE MINNESOTA

Ann Merriman
Christopher Olson

Lake Minnetonka Survey 1 Report



© 2012

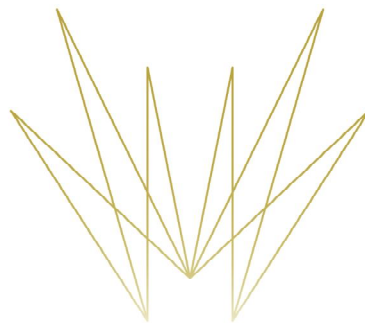
Ann Merriman, Christopher Olson, and Maritime Heritage Minnesota

MHM IS A 501.(c).3 NON-PROFIT CORPORATION DEDICATED TO
THE DOCUMENTATION, CONSERVATION, AND PRESERVATION OF
MINNESOTA'S FINITE MARITIME CULTURAL RESOURCES

Acknowledgments

Maritime Heritage Minnesota (MHM) thanks the People of Minnesota for their support of the Minnesota Historical and Cultural Grant program, part of the Legacy Amendment; without the MHC Grant MHM received to conduct this survey, the work could not have been completed. MHM would also like to acknowledge the Grants Office Staff at the Minnesota Historical Society for their assistance and we thank Scott Anfinson and Bruce Koenen of the Office of the State Archaeologist for their input. The MHM staff spent many hours at the Minnesota Historical Society Library and we appreciate their helpful and knowledgeable staff. MHM digitized all of the MNHS images presented in this report, and those represented here are just a small portion of the actual number of photographs and prints pulled for our research. MHM would like to acknowledge a home school student and her teacher, whom MHM met with after the survey was completed in order to explain and share the process of underwater archaeological surveying. The enthusiasm of both student and teacher are appreciated. MHM acknowledges Emi Ito, Amy Myrbo, Patrick McLoughlin, and Roberta Adams for their input. MHM also thanks the Lisa Stevens of the Excelsior-Lake Minnetonka Historical Society for permission to use one of their images and appreciation goes to Scott McGinnis for providing the file. For anyone who wants to learn more about the boats that plied the waters of Lake Minnetonka, MHM suggests they acquire Scott's book *A Directory of Old Boats* for a comprehensive look at the varied and interesting watercraft of the lake. Lastly, MHM thanks MHM Chair Michael F. Kramer for his substantial in-kind donation to this project.

Cover: Steamboat *Lotus*, temporarily aground in Lake Minnetonka, probably between 1889 and 1891, along with a smaller steam launch nearby (Reserve Album 111 #39, Minnesota Historical Society).



Grant Recipient

MINNESOTA HISTORICAL & CULTURAL GRANTS

*Made possible by the Arts and Cultural Heritage Fund through the vote of Minnesotans
on November 4, 2008. Administered by the Minnesota Historical Society.*

© 2012

Ann Merriman, Christopher Olson, and Maritime Heritage Minnesota

Introduction

The majority of Lake Minnetonka is in Hennepin County, with a small portion of its southwest edge crossing into Carver County. Maritime Heritage Minnesota (MHM) received a private donation in September 2011 and a Minnesota Historical and Cultural Grant in November 2011 to conduct a side and down imaging sonar survey of Lower Lake Minnetonka and Crystal Bay in the Upper Lake in Hennepin County. Prior to this survey, only six wrecks were widely known. Of these, the Office of the State Archaeologist (OSA) recognized only one of these wrecks as a nautical archaeological site – the streetcar steamboat *White Bear*. Through the Lake Minnetonka Survey 1 Project (LMS-1), MHM has identified three additional wreck sites in Lower Lake Minnetonka, the steamboat pier and remains on Big Island as an archaeological site, and completed the Minnesota archaeological site forms necessary to recognize the five previously known sites with State site numbers. Further, MHM has located additional wreck sites that require further research to determine if they qualify for a site number, other anomalies that are probable and possible wrecks, and anomalies that may represent maritime infrastructure or even sunken fish houses.

NOTE: Regarding spelling, MHM is following the spelling of the geographic areas of Lake Minnetonka as they appear on the 1997 USGS Excelsior and the 1967/1993 Revised Hopkins topographical maps. For example, Carsons or Carson's Bay will be Carson Bay, and Gideon's Bay will be Gideon Bay, and so forth. It must also be noted that the USGS map misplaced Solberg Point to the Excelsior Commons instead locating it on the east side of Excelsior Bay, and Point Comfort on Big Island is mislabeled as Crown Point, which is on the same promontory but to the west.

NOTE: The names of many boats on Lake Minnetonka underwent changes over time. A name change will look like this: *Kate/Katie May/Saucy Kate* or *George/Excelsior*.

A Brief Maritime History of Lake Minnetonka

The original inhabitants of the Lake Minnetonka area were aboriginal bands of the Iowa, Cheyenne, and then the Mdewakanton Dakota. The Lake Minnetonka area was a major hunting ground for the Dakota, a place for planting crops and fishing, and a burial ground, using dugout and bark canoes for lake travel. A dugout was dragged out of the North Arm of Upper Lake Minnetonka in 1934 (Hasse 1976, 2, 5; Heffelfinger 1976, 6), and unfortunately the location of – and the survival of – this incredible vessel is currently unknown.



The Native American, probably Dakota, dugout canoe dragged from the North Arm of Upper Lake Minnetonka in 1934 (HE5.19p17, Minnesota Historical Society).

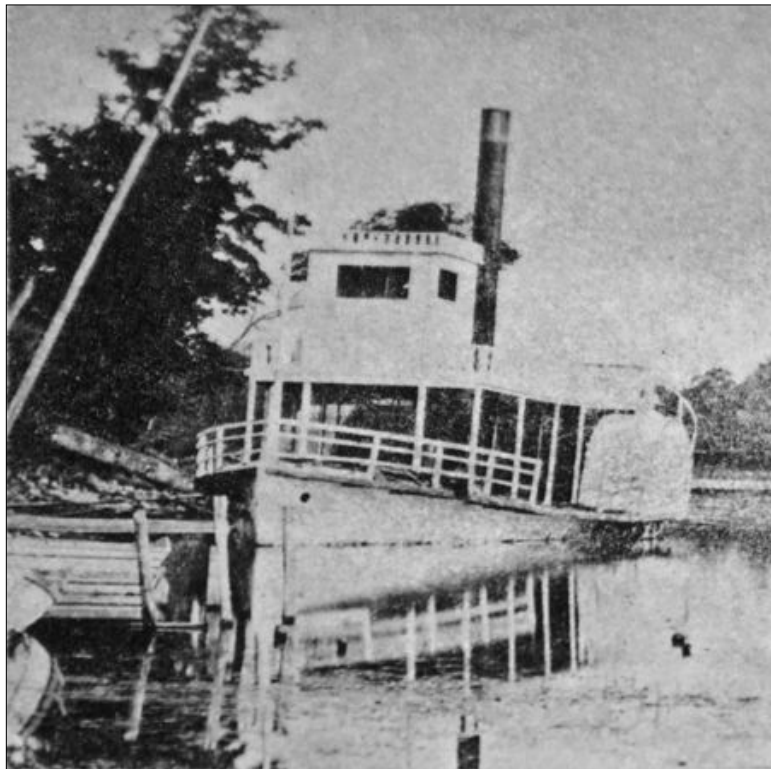


An example of a complete dugout canoe taken from nearby Lake Auburn in 1933 (HE5.19p18, Minnesota Historical Society)

In 1822, teenagers Will Snelling and Joe Brown canoed up Minnehaha Creek from its confluence with the Mississippi River to Lake Minnetonka, becoming the first non-aboriginal people to see the lake. By 1850, territorial Governor Alexander Ramsey

toured the Lake Minnetonka area and was credited with naming it using the Dakota word for “place spread over by water” or “big water” – Minnetonka. The Sioux [Dakota] Treaty of 1851 opened the Lake Minnetonka area to settlement. Minnetonka Mills was established in 1852 at the source of Minnehaha Creek, at the northeast corner of Lake Minnetonka now known as Grays Bay. The town of Excelsior was established in 1853 and Wayzata in 1854. The Lake Minnetonka area in all directions was nearly completely claimed by 1859 and had developed to the point that in 1860, a boatwright named Shaw constructed the first steamboat on the lakeshore – the 50-foot sidewheeler *Governor Ramsey* (Edgar 1984, 8; Heffelfinger 1976, 6; Meyer 1993, 11; Schmitz 1976, 10-11; Stubbs 1976, 8; Wilson 1971, 7-8).

Sidewheeler *Governor Ramsey* was the first steamboat on Lake Minnetonka. She also had the names *Excelsior*, *Lady of the Lake*, *Minnetonka*, and *Mermaid* (Reserve Album 111 #2, Minnesota Historical Society).



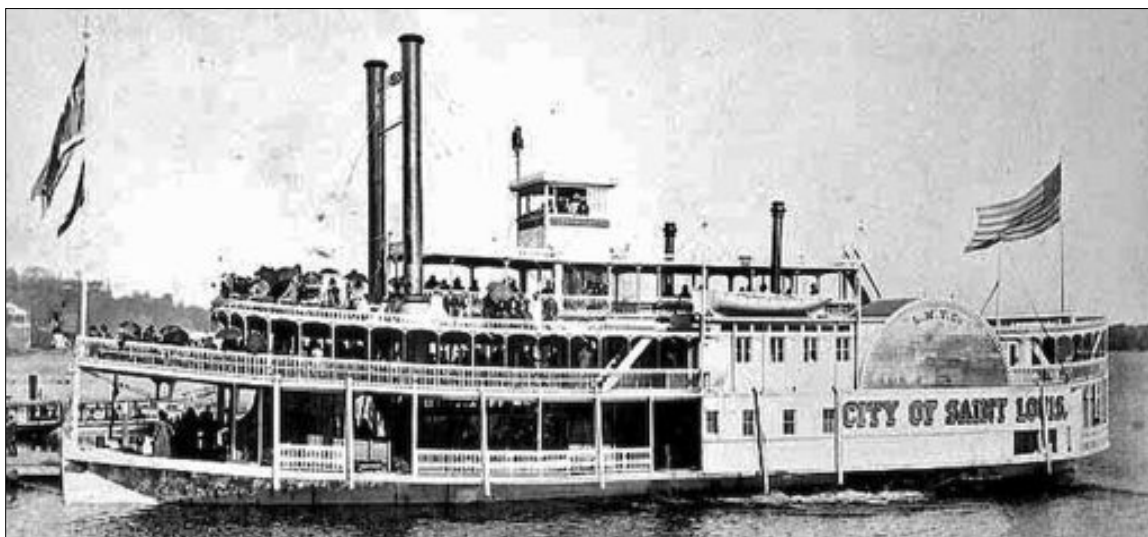
The *Governor Ramsey* was re-built as the *Minnetonka*, left, and later cut down to the barge *Mermaid*, right. She was left to rot on the shore of Shady Isle on Upper Lake Minnetonka (Reserve Album 111 #23 and #41, Minnesota Historical Society).

Governor Ramsey transported mail to Minnetonka Mills – a stage transfer point to Minneapolis – down the navigable Minnehaha Creek and also provided reliable transportation for lake inhabitants. *Governor Ramsey* remained the only self-propelled vessel on the lake until a Detroit-built 35-foot propeller steamer, brought to Lake

Minnetonka by Charles Gardiner, was launched as the *Sue Gardiner* in either 1868 or 1871 (Edgar 1984, 9; McGinnis 2010, 238). So began a long history of maritime commerce on Lake Minnetonka that spawned boat-building firms, cargo and passenger transportation companies, mills, yacht clubs, a pleasure boating industry, a fruit growing trade, hotels of all classes, and tourist destinations for decades to come.

Commercial Transportation

Charles May put together the first 'fleet' of steamers on Lake Minnetonka, beginning in 1874 near Excelsior, with the 65-foot propeller *May Queen* designed by Captain N. H. Harrison and mastered by Captain William Rockwell. May's maritime commercial interests also included the sidewheeler *Rambler* in 1874 and the propellers *Kate/Katie May/Saucy Kate* in 1876, *City of Minneapolis* in 1880, and in 1882, *Mary/Hiawatha/Scandinavian/Star*. Beginning in 1881, the Lake Minnetonka Transit Company (LMTCo) began operations with the 160-foot sidewheeler *City of St. Louis*. In 1881, the company acquired or leased the propellers *Saucy Kate*, *City of Minneapolis*, *Lotus*, the sternwheeler *Hattie May*, and in 1883, the *Star*. The LMTCo's major stockholder was US Senator William D. Washburn, also of the Minneapolis and St. Louis Railway. James J. Hill of the St. Paul, Minneapolis, and Manitoba Railway launched the 300-foot *Belle of Minnetonka* to operate out of the Hotel Lafayette pier beginning in 1882. Competition between the two largest steamers on Lake Minnetonka ceased a year later when both vessels came under the control of the Lake Minnetonka Navigation Company (LMNC) in 1883. George West and his son Ebenezer put together a small 'fleet' of Lake Minnetonka craft and by 1891 they owned the propellers *Twin City*, *West Point*, and *Why Not?* Another small fleet owner was Captain James L. Hopkins, who operated the *Alert*, *Hawkeye/Reindeer*, *Juno*, and *Nina* beginning in 1892 (Edgar 1984, 10-14, 19, 21; McGinnis 2010, 4-5, 15, 17, 36-39, 84-85, 104, 131, 154-155; 180, 194, 253). However, the most prolific of steamboat owners on Lake Minnetonka was Captain John R. Johnson, founder of the Lake Minnetonka Transportation Company (LMTCo) in 1897.



The large sidewheeler *City of St. Louis* (HE5.13p71, Minnesota Historical Society).



The *Belle of Minnetonka*, the largest boat to operate on Lake Minnetonka, in 1882 (Reserve Album 111 #16, Minnesota Historical Society).



Many small steamers operated on Lake Minnetonka from the 1880s onward. On the far side of the dock at Spring Park, probably in 1894, are (L to R) the *Acte*, *Alert*, *West Point*, and *Helena*, and on the near side of the dock are the *Twin City*, *Ralph*, and *Mabel Lane*. Note the coal bunker on the shoreline (HE5.11Tr9, Minnesota Historical Society).

John R. Johnson's first job on a Lake Minnetonka boat was as first mate of the *City of St. Louis*, later becoming her captain. With a decline in business for the larger steamers due to a reduction in tourism, "the Minnetonka Navigation Co. will make an assignment and that its property will be offered for sale. The steamers owned by this company were the old *Belle of Minnetonka*, the *City of St. Louis*, *Hattie May*, *Lotus*, *Minneapolis* and the *Saucy Kate*" in September 1896. Captain Johnson purchased the LMNC fleet for \$3,000, acquired a dock at Solberg Point and two others across the bay in Excelsior; these holdings becoming the LMTCo. Over the years Johnson owned many boats, some of which he constructed on Solberg Point: the *Alert*, *Kate/Katie May/Saucy Kate*,

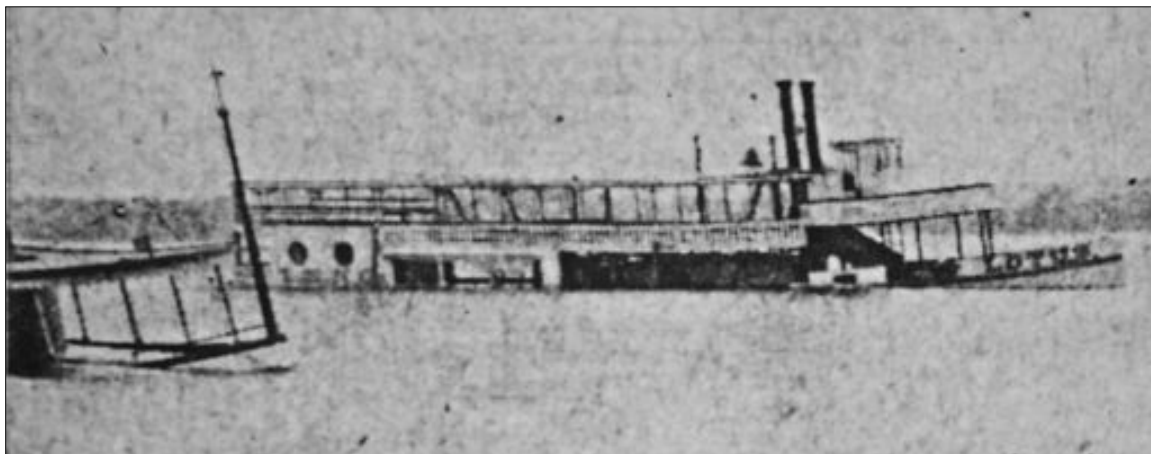
Hattie May/Tonka, '66/*Katie Lillagar/Dagmar*, *Mayflower*, *Me Too*, *Rambler*, *Puritan*, *Vergie/Pilgrim*, the old Narrows Ferry, barge *Priscilla*, *Plymouth*, *Cala Sayam*, *Buttinsky*, *John Alden*, tug *Priscilla*, *Napoleon*, and *Miles Standish*. Captain Johnson fashioned a scow out of a portion of the *City of St. Louis* and local boat-builder G. V. Johnson transformed a large forward section of that steamer into the barge *Priscilla*. In June 1904 it was reported that "Commodore Johnson is erecting a large wharf and station at Solberg's Point, which will be greatly appreciated by those who take the trains or boats at that point" in an attempt to improve his waterborne transportation and excursion business. In 1905 Captain Johnson took a contract from the Twin City Rapid Transit Company's (TCRT) to construct three ferries for use between Excelsior and the under-construction Big Island Amusement Park. In 1906, Johnson sold *Mayflower*, *Plymouth*, and *Puritan* to the TCRT and removed himself from the transportation business on Lake Minnetonka, concentrating on the operation of his Lake Minnetonka Dredging Company. Interestingly, the Wayzata and Excelsior Steamboat Line (WESL) was formed as competition for Johnson's LMTCo, a fleet comprised of *George/Excelsior*, *Victor*, *Fannie L.*, *Helen*, *Ypsilanti*, *Jaunita*, *Milliquata*, and *Comet*. In 1906 the WESL became the White Line Transportation Company, then the only competition for the TCRT and its new Streetcar Boats. In late 1906 the TCRT monopoly of the largest passenger steamers on the lake was complete with their acquisition of the *George/Excelsior* (Edgar 1984, 16; *Excelsior Cottager* 1896a; McGinnis 2010, 5, 26-27, 59, 72, 76, 89-90, 101, 128, 134, 173, 175, 188 211, 214-216, 219, 253; *Minneapolis Journal* 1921; *Minneapolis Sunday Tribune* 1931; *Minnetonka Record* 1904).

A view looking toward Excelsior from Solberg Point, with the Minneapolis and St. Louis Railway bridge to the left. The large steamer in port appears to be the *Belle of Minnetonka* (MH5.9EX1r1, Jacoby, Minnesota Historical Society).



Saucy Kate, formerly the *Kate* and *Katie May*, in 1889 (Reserve Album 111 #31, Minnesota Historical Society).





Steamboat *Lotus*, temporarily resting on the bottom in shallow water in Lake Minnetonka probably between 1889 and 1891, along with a smaller steam launch nearby. *Lotus* was reported “hard aground” in June 1889 and was not re-floated until 1891. This image is included to show that not all boats remained on the bottom of the lake when they sank, but were pumped out and re-floated depending on the circumstances (McGinnis 2010, 154; Reserve Album 111 #39, Minnesota Historical Society).

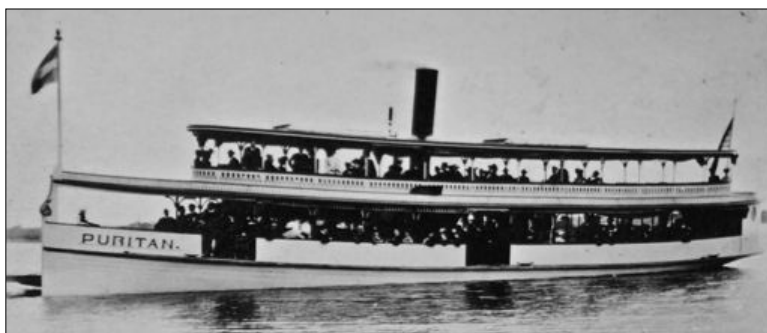


The *City of St. Louis* as she looked appeared around the time when Captain Johnson acquired her, cutting her bow down to the barge *Priscilla* and transforming her stern into a scow/barge (HE5.13r3, Minnesota Historical Society).



Captain Johnson's dredge boat *Rambler* is shown here around 1902 deepening Excelsior Bay and using the dredge spoil to increase the amount of shoreline. Of interest is the barge next to the *Rambler*; note that the barge has a pointed end and a sponson – a deck level overhang found on steamboats (red arrow). MHM contends this barge may be the aft section of the cut-down *City of St. Louis* (Excelsior-Lake Minnetonka Historical Society, courtesy of Scott McGinnis).

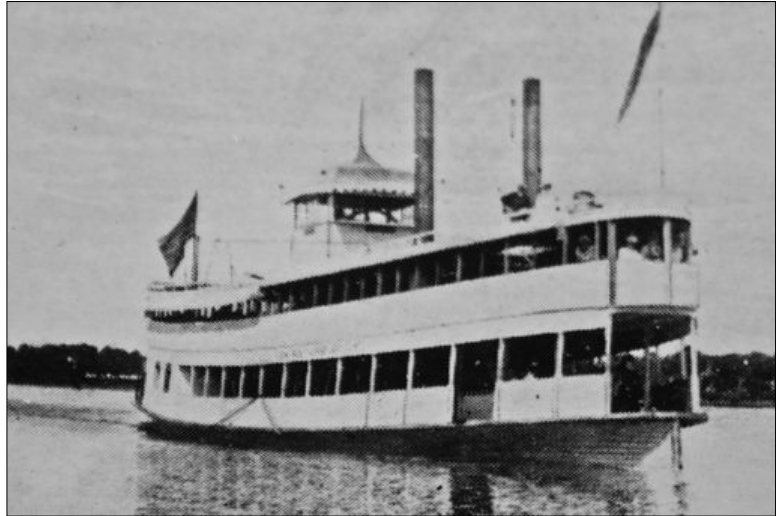
Puritan, constructed by Andrew B. Peterson for Captain Johnson, as she appeared in 1901 (Reserve Album 111 #43, Minnesota Historical Society).



Plymouth, designed by Andrew B. Peterson and constructed by Captain Johnson at Solberg Point, as she appeared ca. 1903-1905 (Reserve Album 111 #45, Minnesota Historical Society).



The sternwheeler *George* as she looked before her overhaul in 1904. MHM must ponder what her designers were thinking about when they decided on this 'look' (Reserve Album 111 #44, Minnesota Historical Society).



The *Victor* and *Excelsior* of the Wayzata and Excelsior Steamboat Line are seen here with the Lake Minnetonka Transportation Company's *Puritan* in 1904-1905. *Victor* is at the dock with *Puritan* approaching on the right. *Excelsior* has emerged remodeled from her time as the *George* (Maritime Heritage Minnesota Collection).



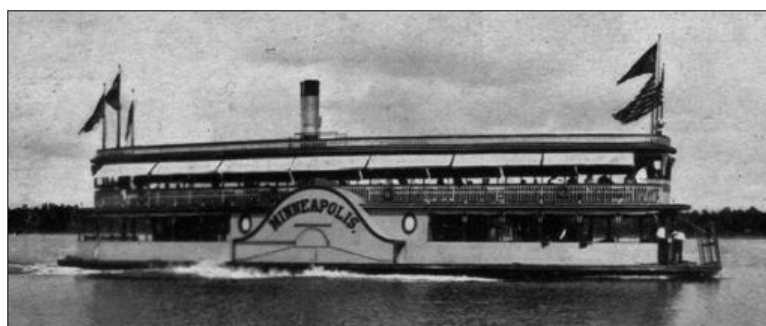
Boats at Excelsior's wharf in 1904-1905. The large white sternwheeler in the background is *Excelsior* and the yellow vessel is *Pymouth*. However, *Pymouth* was not yellow at this time but was white, indicating a mistake during postcard colorization (Maritime Heritage Minnesota Collection).





Another view of Excelsior's wharf with the casino in the background. Again, the *Excelsior* and *Plymouth* are in port with other vessels in 1904-1905. Note *Plymouth* is the correct color (Maritime Heritage Minnesota Collection).

The double-ended ferries *Minneapolis*, *Minnetonka*, and *St. Paul* were constructed by Captain Johnson at Solberg Point for the Twin City Rapid Transit Company. The boats were identical, having this look during the 1906 season (Maritime Heritage Minnesota Collection).



Dozens of other steamboat and gasoline launch owners worked on Lake Minnetonka during the last half of the 19th and early 20th Centuries. The coming of the TCRT streetcar line to Excelsior and the construction of six Streetcar Boats (also known as Express Boats) as public transportation in 1906 (*Como*, *Harriet*, *Hopkins*, *Minnehaha*, *Stillwater*, *White Bear*), combined with TCRT's acquisition of the vessels mentioned above from the LMTCo and WESL, nearly eliminated any competition in waterborne transportation on the lake. However, by early May 1906 the TCRT had not completed the required 16 docks in order for their Streetcar Boats to operate fully, and only the *Minnehaha* and *Stillwater* had arrived from their Minneapolis shops ready for service. Therefore, a few independent boat operators persisted with their service in 1906, including in early 1906 *White Flyer* (a name briefly held by *George/Excelsior* before she was sold to TCRT), *Wayzata*, *Acte*, *Vergie/West Point/Pilgrim* (captained by Al Bickford), *Hebe* (captained S. T. Johnson), *Detroit* (captained by A. J. Cornell), and *Victor*, owned and operated by Captain George Hopkins. Captain Hopkins had worked with Captain John R. Johnson throughout the years, starting out as an engineer on the *City of St. Louis* when Johnson was First Mate. He also captained *Saucy Kate* (1899) and *Plymouth* for Johnson, and purchased the *Victor* in 1906. During the Streetcar Boat years, even with the inclusion of a seventh Streetcar Boat (*Excelsior*) in 1915, Captain Hopkins operated the *Victor* until late 1925. In 1924, the TCRT began limiting their Streetcar Boat service by eliminating some stops around the lake and by 1925, *Como*, *Minnehaha*, *White Bear*, and the TCRT tug *Hercules* were decommissioned. According to TCRT construction records, these vessels were dismantled (machinery, seats, superstructure removed) in 1926 and their hulls sunk in Lake Minnetonka north of Big

Island. By late June 1925, the Transit Supply Company, a subsidiary of the TCRT, placed the remaining four Streetcar Boats up for sale – with one taker. Captain Hopkins purchased the *Hopkins* for \$1,500, changed her trademark yellow hull to white, and renamed her *Minnetonka*. She operated as an excursion boat on Lake Minnetonka until 1949, when she was sunk near her sisters north of Big Island. No interest in the *Excelsior*, *Harriet*, and *Stillwater* was expressed and they were completely dismantled at the TCRT's shops in early 1928, their hulls never seeing the bottom of the lake (McGinnis 2010, 70, 253; *Minneapolis Journal*, 1899, 1925, 1931; *Minnetonka Record* 1906a; Construction Ledgers: Expenses, TCRT Records 1926, 1928).

The Streetcar Boat *Como* before 1911
(Maritime Heritage Minnesota
Collection).



The Streetcar Boat *Harriet*, 1911 or
later. Note the torpedo stern of another
Streetcar Boat to the lower left; the
photographer must have been on yet
another boat or at the end of a dock
(Maritime Heritage Minnesota
Collection).



The Streetcar Boat *Hopkins*, 1911 or later (Maritime Heritage Minnesota Collection).

A 1906 ad for the Streetcar Boats (Minnetonka Record 1906b).

Twin City Boats

Newest	Fastest
Sturthest	Safest
Handsome	BEST
on Minnetonka	

FARE, Each Way, From
Excelsior to any Point
Reached by the Twin City
Steamers

10c

Try the Twin City Boats



The Streetcar Boat *Minnehaha* before 1911 (Maritime Heritage Minnesota Collection).



The Streetcar Boat *Stillwater*, 1911 or later (Maritime Heritage Minnesota Collection).



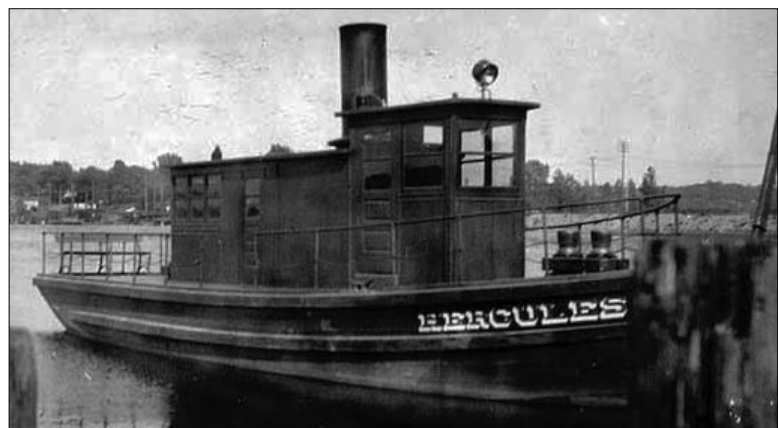
The Streetcar Boat *White Bear* before 1911 (Maritime Heritage Minnesota Collection).



The Streetcar Boat *Excelsior*, 1915 or later, of a slightly different design than her older sisters. Note the other two Streetcar Boats at the Excelsior dock with her (Reserve Album 111 #52, Minnesota Historical Society).

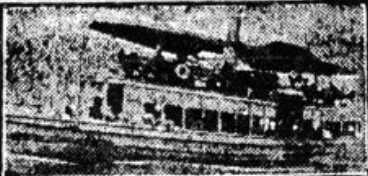


The Twin City Rapid Transit Company's tug *Hercules*, 1917 or later (HE5.14r35, Minnesota Historical Society).



The *Victor*, built by Royal C. Moore of Wayzata in 1894 as the *Kenozha*, was 31 years old when she was re-floated in 1925 for one final season of operation on Lake Minnetonka (McGinnis 2010, 141-142).

The image to the right was featured in the newspaper that described the Excelsior Fire Department's successful raising of the *Victor* for Captain Hopkins (Minneapolis Journal 1925).

FOR SALE
FOUR STEAM
EXPRESS BOATS

Equipped at present for passengers. Capacity 106 passengers. Can be utilized for freight or other service.

Draft with coal 5 ft.
7½ in. Displacement
coaled 62,000 lbs.

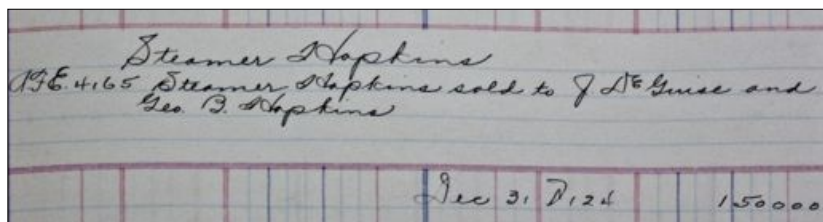
These boats were in use on Lake Minnetonka as part of the Twin City railway transportation system but due to lack of patronage were discontinued.

They may be purchased at a fraction of their original cost. Can make delivery on the Mississippi river at Hastings Minn.

For Further Particulars Address
TRANSIT SUPPLY CO.
ST. PAUL, MINN.

Left: The Transit Supply Company, a subsidiary of the TCRT, placed this ad in a newspaper in an attempt to sell *Como*, *Hopkins*, *Minnehaha*, and *Stillwater*.

Below: George Hopkins and Joseph DeGuise purchased *Hopkins* in December 1925 (Construction Records: Ledgers, TCRT Records 1925).



The *Minnetonka*, painted white, on a Lake Minnetonka excursion, 1926 or later (Maritime Heritage Minnesota Collection).

Lake Minnetonka Boat Builders

A brief overview of some boat-builders on Lake Minnetonka indicates that a commercial maritime culture existed there by the late 1870s. Presented here are a few boat designers and builders, along with a list of their creations, to illustrate the importance of this industry to the Lake Minnetonka economy.

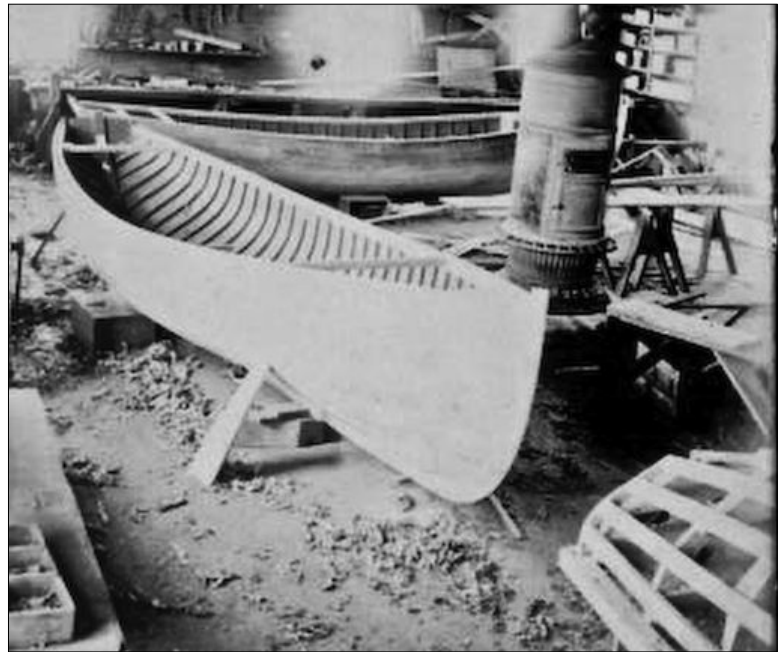
While Lake Minnetonka saw its share of imported boats, both large and small, from as far away as the East Coast, the lake also served as the base for numerous independent boat builders and larger companies. Nathaniel H. Harrison began building boats in 1874, including *May Queen* (1874), *Coquette* (1879), and *City of Minneapolis* (1880); he also re-fitted vessels and designed boats for other builders. Maurice J. Godfrey constructed his first Lake Minnetonka vessel in 1879 and established Godfrey's Excelsior Boat Yard in 1885, later becoming M. J. Godfrey & Son, on St. Albans Bay's south shore. Godfrey's enterprise was responsible for *Hattie May/Tonka* (1878), *Breezy Point* (1884), *Nina* (1884), *Minnehaha* (1885), *Mayflower* (1898), *New Acte* (1898), and *George/Excelsior* (1901). Godfrey also took on jobs to re-build and re-design several steamers. Gustavus V. Johnson and Royal C. Moore established separate boat-building firms in Wayzata in the late 1870s. In 1883 they formed 'Johnson and Moore', building boats out of their Wayzata boat yard until 1888. Johnson left the state, only to return in 1904, and Moore continued his business under 'Moore Boat Works' until 1912. G. V. Johnson was responsible for a number of Lake Minnetonka-constructed boats including *Lillie Reid* (1878), *Elsie* (1879), *Albatross* (1880), *Agnes* (1881), *Susie Belle* (1880-1881), *Dutchy* (1881), *Ariadne* (1882), *Kismet* (1882), *Margaret* (1883), *Rachel Hill* (1883), barge *Priscilla* (1902), and *John Alden* (1905). Some of the vessels Johnson and Moore produced include the *Kansas City* (1883), *Lazy Jane* (1884), *Rosander* (1885), *Woodland* (1885), and *Lizzie Gill* (1886). The Moore Boat Works was the most prolific boat-building firm on Lake Minnetonka, producing larger steamers, yachts, steam and gasoline launches, and personal rowboats (McGinnis 3-4, 10, 25, 36, 45-46, 61, 64, 100, 128, 132, 145, 149, 151, 161, 170, 173, 177, 190, 193, 214, 217, 225, 239, 275, 299-302; *Minneapolis Journal* 1901).

Royal Moore's distinct 'torpedo stern' design that left virtually no wake and reduced drag, was a hallmark of many Moore boats including the TCRT's Streetcar Boats. Between 1888 and 1912, Moore Boat Works produced dozens of vessels, including *White Wings* (1888), *Winona* (1889), *Zoraya* (1889), *Wacouta* (1890), *Florence I. Wright* (1891), *Oriole* (1891), *Ventura* (1891), *Columbia* (1893), *Mischief* (1893), *Ethel* (1894), *Oswa* (1894), *Thistle* (1894), *Senorita* (1894), *Ypsilanti* (1894), *Gale* (1895), *Orphan* (1895), *Shark II* (1896), *Breeze* (1897), *Demon* (1897), *Gladis* (1897), *Kossack* (1897), *H. C. McLeod* (1898), *Arbors/Green Dragon* (1899), *Dewey* (1899), *Dorothy* (1899), *Emma L.* (1899), *Florence* (1899), *Idylwild* (1899), *Katahdin* (1899), *Okadusa* (1899), *Wa Wa* (1899), *Dunnottar* (1900), *Marietta* (1900), *Algoma* (1901), *Aurelia* (1901), *Rainbow* (1901), *Sans-Souci* (1901), *Tanager* (1902), *Widgeon* (1902), *Winilorah* (1902), *Ito* (1903), *Billy D.* (1902/1903), *Iamokay* (1904), *Bobolink* (1906), *Buttinsky* (1905), *Canihauke* (1901), *Captain H.* (1901), *Cheemaun* (1901), *Muskegon* (1903), *Helenita* (1905), *Golden Rule* (1905/1908), *Como* (1906), *Harriet* (1906), *Hopkins* (1906), *Minnehaha* (1906), *Stillwater* (1906), *White Bear* (1906), *Katahdin II* (1906), *Sierra-Nevada* (1906), *Isabelle* (1907), *Harriet* (1909), *Manawa* (1909), *Tasmatic* (1909), and *West Arm* (1909). Of course Moore Boat Works modified, maintained, and

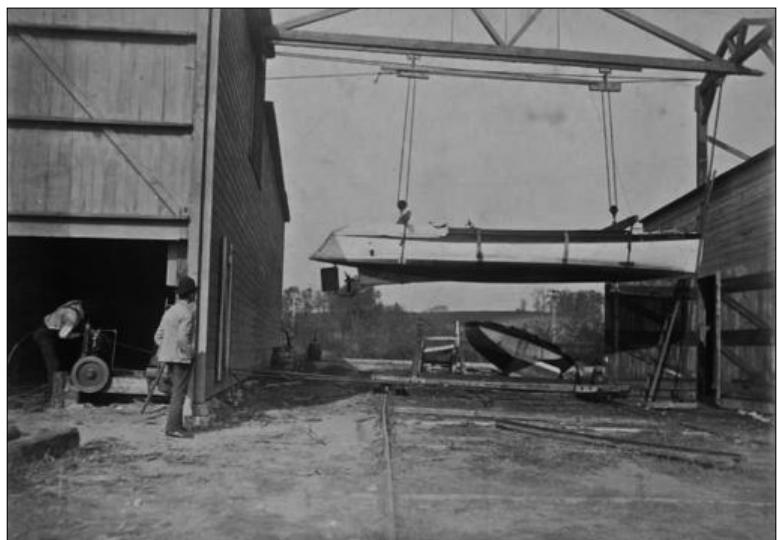
fixed several other watercraft through its 24-year existence, as well as constructing dozens of boats that did not take to Lake Minnetonka (McGinnis 2010, 6, 12, 20, 23, 25-26, 29-30, 35, 44, 54, 56, 59, 65, 69, 78-79, 86, 91, 93, 98-99, 108, 116, 118, 120, 122, 132, 147, 159, 163, 183, 186, 198, 203, 218, 230, 232, 234, 240, 242, 244, 252, 260, 266, 270-271, 273, 277-278, 298). A Moore Boat Works catalog, ca. 1908-1912, lists an impressive number of boat designs and options to fit a wide range of customer needs, wants, and prices.

A view inside Moore Boat Works in Wayzata (Kerm Stake Collection).

A page from a Moore Boat Works catalog describing small craft (Minnesota Historical Society).



A hoist outside Moore Boat Works moving a torpedo stern boat (Kerm Stake Collection).



A Moore boat ready for travel by horse and wagon (Kerm Stake Collection).



A Moore boat ready for travel by trailer (Kerm Stake Collection).



Moore boats after they were launched on Lake Minnetonka. Note the marine railway in the foreground for launching and pulling boats from the lake (Kerm Stake Collection).



Small boats heading across Wayzata Bay toward Moore Boat Works (Kerm Stake Collection).



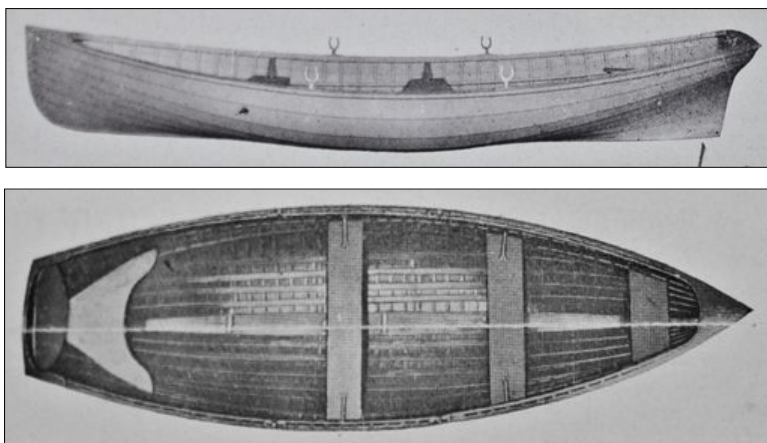
Sawin H. Dyer began building Lake Minnetonka watercraft in 1881 out of Excelsior. He constructed the sailboats *Black Pirate* (1882), *Osprey* (1883), *Wave* (1884), *Lucifer* (1887), *Single Tax* (1893), and *Traveller* (1896), and completely re-built the steamer *Mary* into the vessel *Hiawatha* (1881). S. H. Dyer's partnership with his young son Arthur produced the vessels *Genevieve* (1890), *Snark* (1890), *Hermes* (1891), *Kestrel* (1891), and *King Bird* (1891) before Arthur set out on his own, founding the Dyer Boat Works in 1892. Arthur primarily designed and built fast racing sailboats, but also constructed a few motor launches and even a work dredge as well. Some of his creations include *Advertiser* (1892), *Apukwa* (1893), *Arrow* (1894), *Diamond* (1894), *Cupid* (1893), *Onawa* (1893), *Water Witch* (1893), *Marie* (1894), *Psyche* (1894), *Wasp* (1895), *Rambler* (prior to 1895), *Alcyone* (1896), *Cupid* (1896), *Magic Slipper* (1896), *Papoose* (1896), *Reveille* (1896), *Swift* (1896), *Marie II* (1897), *Gladys* (1899), *Sapphire* (1899), and the *Boardman Dredge* (1907). Dyer's most impressive vessel was the groundbreaking *Onawa*, on display at the Excelsior-Lake Minnetonka Historical Society (ELMHS). *Onawa's* innovative 'gliding over the water' design, conceived by local 15-year old Ward Burton, broke speed records and influenced yacht construction from that point forward and Dyer received many orders for similar boats from East Coast patrons. Unfortunately for the maritime history of Lake Minnetonka, Dyer Boat Works completely burned in 1910, taking 43 vessels stored there with it – steamers, motor launches, and sailboats among them (McGinnis 2010, 3-4, 9-10, 22-23, 49-50, 54, 87, 92, 111, 137, 143, 145, 159, 162, 167, 201-204, 215, 218, 221, 231, 235, 237, 240, 248, 261, 263-264, 300).

In 1882 John R. Brooks arrived at Lake Minnetonka from the East Coast, where he had designed and built yachts, and established his boat-building firm at Cedar Point on Wayzata Bay. He was quite prolific during his 17-year career on Lake Minnetonka and exclusively constructed sailing vessels including *Catherine* (1882), *Curlew* (1886), *Phyllis* (1886), *Atalanta* (1888), *Aurora* (1889), *Aurelia* (1890), *Kelpie* (1890), *Kid* (1890), *Kitten* (1880), *Luella* (1890), *Celia R.* (1891), *Dolphin* (1891), *Selah R.* (1891), *Siren* (1891), *Coquette* (1893), *Daphne* (1893), *Deke* (1893), *Argo* (1894), *Iris* (1894), *Dragon* (1895), and *Answer* (1896). Brooks also designed some of the boats mentioned above, designed boats for other builders, re-built some yachts over the years, and several of the yachts he constructed on the East Coast found their way to Lake Minnetonka (McGinnis 2010, 8, 10-13, 32, 46, 50-51, 53-54, 57, 119, 140, 144, 146, 155, 209, 232, 236, 299).

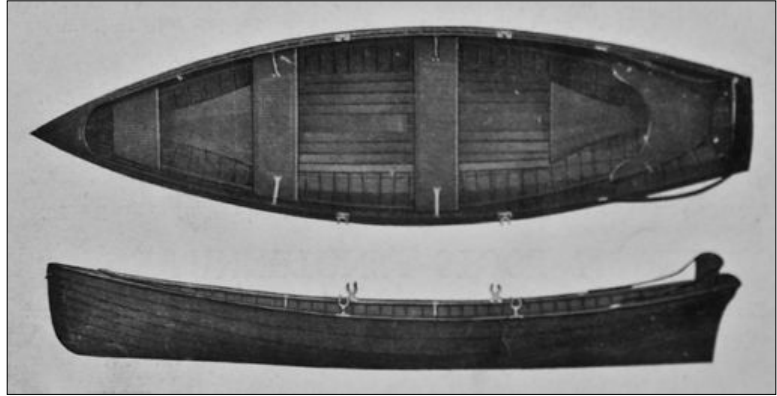
When Thomas H. Wise arrived in Wayzata in 1886, he apparently partnered with Gustavus V. Johnson to construct boats during the last two years Johnson was partnered with Royal C. Moore; perhaps Wise worked for Johnson and Moore. Regardless, Wise built boats at Lake Minnetonka beginning in 1886 and by 1902, he established his Wayzata firm, the Wise Boat Works. Examples of Wise boats include the *Ripple* (1889), *Pauline* (1890), *Ino* (1891), *In An' Out* (1892), *Nautilus* (1893), *Omega* (1893), *Viletta* (1894), *White Crow* (1894), *Henry* (1906), and *Swan* (1906), along with several launches for local folks, but the names of the boats are unknown. Andrew B. Peterson arrived in Excelsior in 1893 and between 1894 and 1904, he built boats at the location of the current Excelsior Commons. His vessels included *Dagmar* (1893), *Gypsy* (1895), *Hawk* (1894), *Lorelei* (1894), *Slipener* (1895), *Victoria* (1895), *Beatrice* (1896), *Hurrah* (1896), *Tartar* (1896), *Katrina* (1897), *Pyxie* (1897), *Tonic* (1897), *Wizard* (1897), *Fremad* (1898), *Hazard* (1898), *Moccasin* (1898), *Cherokee* (1899), *Puritan* (1901), *Gopher* (1901), and the *Wihnja* (1904). Peterson also designed the steamer *Plymouth* (1903), built by John R. Johnson. Peterson sold his boat yard to his son P. L. Peterson and his partner F. Johns in June 1904, his last project being "the designing and building [of] the fast sloop, *Wihnja*" (McGinnis 2010, 14, 35, 50, 83, 93, 98, 104-105, 109, 116, 118, 139, 152, 184, 190, 200, 205, 211, 216-217, 221, 236, 240-241, 247, 254, 269, 274, 302-303; *Minnetonka Record* 1904).

In 1912 a group of Minneapolis business interests associated with the Ramaley Boat Company of White Bear Lake purchased Moore Boat Works, reportedly for \$20,000, and continued operations until 1929. In late 1928 Stephen and Walter Walker acquired the re-built Arthur Dyer Boat Works on Carson Bay, where they planned to construct new workshops for boatbuilding and maintenance. However, in 1929, the newly established Walker Boat Works, along with the Ramaley Boat Company and Wise Boat Works combined to become the Minnetonka Boat Works. Other boat builders had located their yards on the lake over the decades, including Henry Swaggert of Wayzata in 1925, a former Moore and Ramaley employee (McGinnis 2010, 302; *Minnetonka Herald* 1954; *Minnetonka Record* 1928; *Wayzata Reporter* 1912).

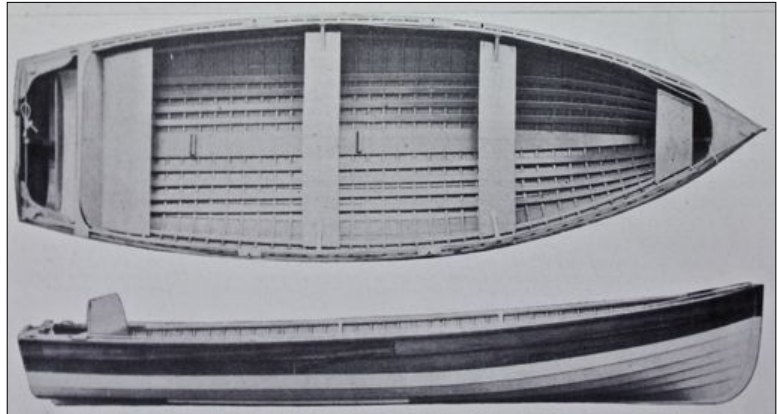
A Ramaley row boat designed and built at Lake Minnetonka is a Moore Boat Works design, including the same model number (Ramaley Brochure, Minnesota Historical Society).



This is the Ramaley 'Family De Luxe Row Boat', designed and constructed on the shores of Lake Minnetonka in Wayzata (Ramaley Brochure, Minnesota Historical Society).



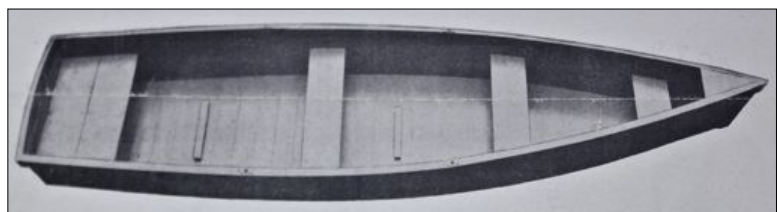
A small Ramaley motor boat designed and built at Lake Minnetonka (Ramaley Brochure, Minnesota Historical Society).



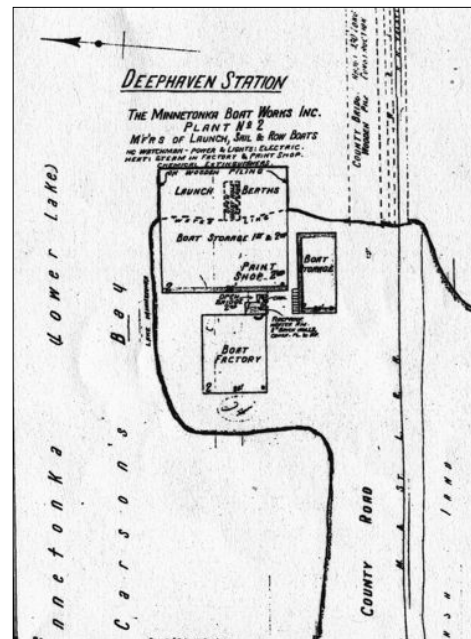
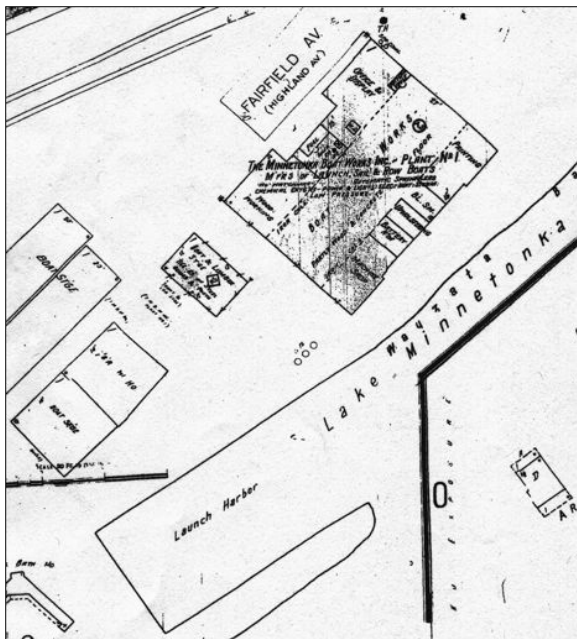
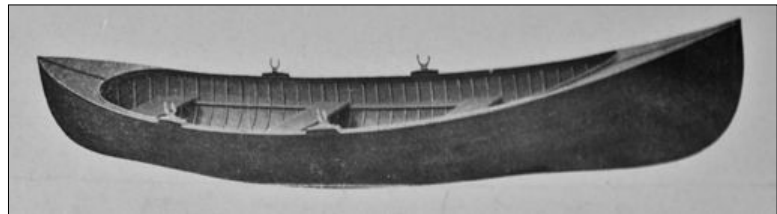
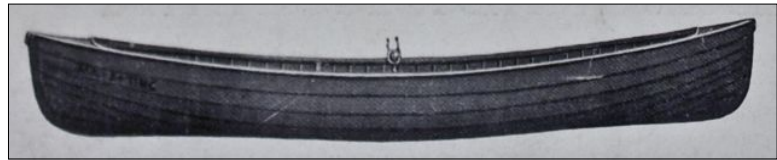
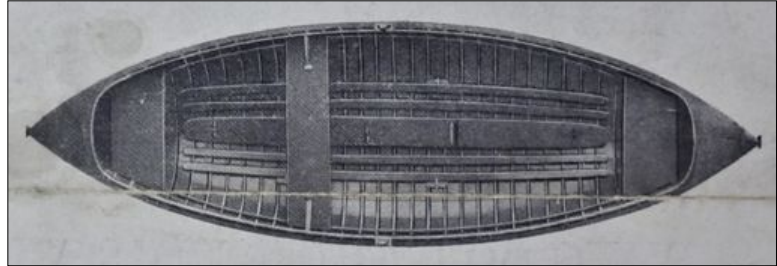
Ramaley constructed 'smooth skin' motor and row boats with two different sterns, one to accommodate an outboard motor (Ramaley Brochure, Minnesota Historical Society).



Ramaley's fishing and hunting boats were constructed in different ways and qualities for a wide range of prices. This simple boat is the 'Fisherman's Friend', the cheapest of the boats offered by the company (Ramaley Brochure, Minnesota Historical Society).



Ramaley constructed two styles of more expensive fishing and hunting boats, built to order only. Both boats were non-motorized and double-ended like a canoe, with the smaller version (top two images) suited for use by one person if necessary (Ramaley Brochure, Minnesota Historical Society).



The Minnetonka Boat Works shops in Wayzata were at the same location as the Moore Boat Works/Ramaley Boat Company (left). Another Minnetonka Boat Works facility was located on Carson Bay in Deephaven (right) at the former location of the Dyer Boat Works/Walker Boat Works (Sanborn Map Company, 1933).

This general re-cap of the most prolific boat-builders on Lake Minnetonka serves to illustrate the maritime culture that was established there beginning in the late 1870s. While small, locally-built vessels characterized lake life since the 1850s, the development of pleasure yachting, yacht racing, and commercial waterborne transportation facilitated the creation of a large Lake Minnetonka-centric boat construction industry that not only supported the local economy, but the lumbering,

engine manufacturing, watercraft component manufacturing, and sailing fabric industries throughout the area, state, and nation.

Yacht Clubs

In early July 1882 during the opening weekend of J. J. Hill's Hotel Lafayette one sailboat race spawned, over the next two months, the Minnetonka Yacht Club (MYC). The MYC included members of the Breezy Point Club and The Highlands, two private men's clubs. The inaugural members of the MYC sailed either catboats or sloops that measured between 18 and 23 feet long. The first MYC regatta was held on 15 August 1882, beginning 130 years of races. The Excelsior Yacht Club was established in 1883 but by 1889, the two clubs merged into one and a clubhouse was constructed on Lighthouse Island in 1890. By this time, the club had 263 members and 62 boats over four classes: special class (16 feet and under, any rig); catboats (16-23 feet); 2nd class sloops (under 21 feet); and 1st class sloops (21-23 feet). In 1965, the Wayzata Yacht Club (WYC) was established on the north shore of the bay at the site of the former Wise Boat Works, and a clubhouse was constructed there in 1981 and the nearby marina was acquired in 1985 (Kunz 1982, 12-13, 17, 19, 25, 28-29; McGinnis 2010, 303; Wayzata Yacht Club 2012).

The Minnetonka Yacht Club islands before 1905. To the left is Bug Island, to the right is Lighthouse Island, and in the background is Big Island (Maritime Heritage Minnesota Collection).



Minnetonka Yacht Club racing sailboats before 1906 (Maritime Heritage Minnesota Collection).



A sailing regatta near Lighthouse Island before 1906 (Maritime Heritage Minnesota Collection).



This large sailboat has been identified as the *Kossack*. She was constructed by Moore Boat Works in 1897 and she is shown here in 1899 (McGinnis 2010, 147; Maritime Heritage Minnesota Collection).



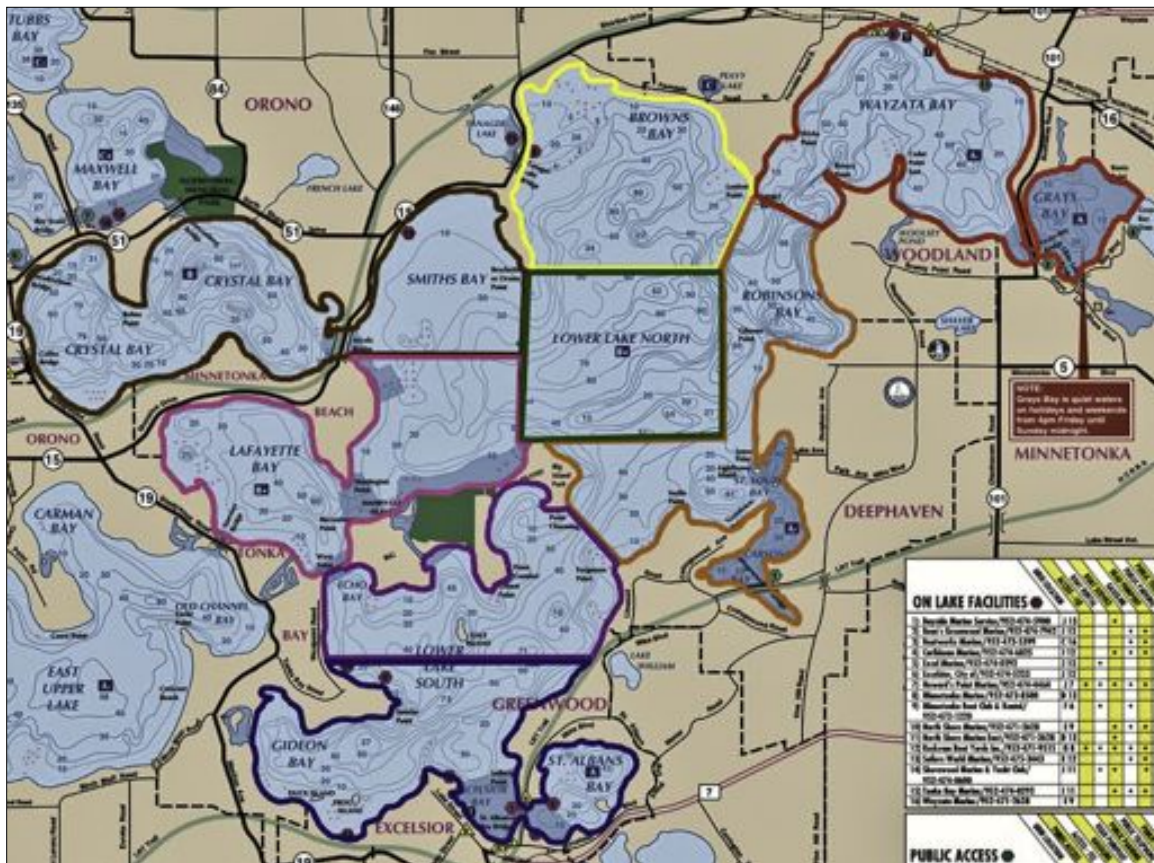
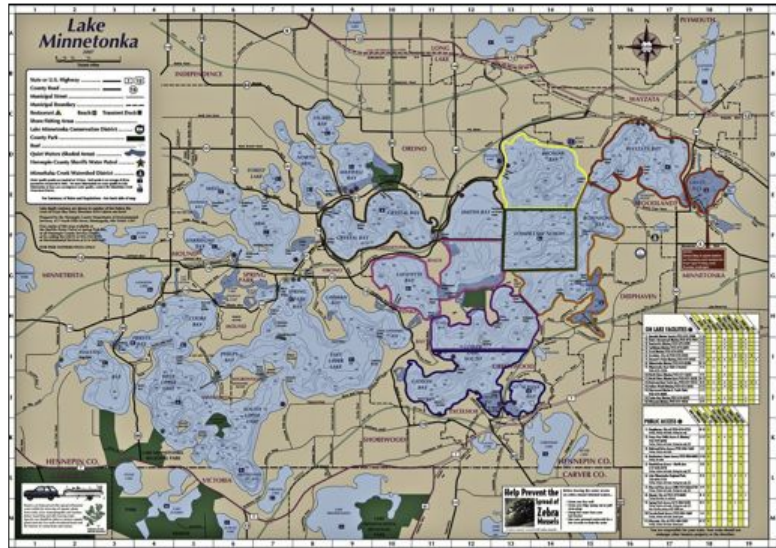
Survey Methodology

Maritime Heritage Minnesota's LMS-1 Project is the third systematic side and down imaging sonar survey of a body of water in Minnesota; the first was the Mississippi River Aitkin County Survey (MRACS) in 2010 and the Minnesota River Survey 1 (MRS-1) in 2011, both conducted by MHM. The State Historic Preservation Office (SHPO) sponsored a targeted sonar survey of a section of Lower Lake Minnetonka in 1996 to produce sonar images of the six known wrecks *Como*, *George/Excelsior*, *Hercules*, *Hopkins/Minnetonka*, and *White Bear* located north of Big Island, and the *Minneapolis*, east of Sunrise Point. These researchers also conducted two reconnaissance dives on the *White Bear* to record her basic measurements (Hall, Birk, and Newell 1997, 53-62). The LMS-1 Project was designed in two parts beginning in September 2011 and continuing in November 2011. The work was dependent on the availability of funds and the research was designed around these restrictions.

In late September 2011, MHM began surveying in Gideon Bay, traveling in an east to west direction, 'mowing the lawn' in transects spaced up to between 150-250 feet apart, creating a survey area of 300-500 feet per transect. Throughout the survey, some areas were targeted for further review and the beams would be shortened to 50 feet wide and often restricted to one side of the boat to get better images. In September MHM surveyed Gideon Bay, Excelsior Bay, St. Albans Bay, and to a line north of Excelsior Bay and south of Gale Island extending from Tonka Bay to Greenwood. This line was chosen in order to include the known wreck *Minneapolis* in the survey area in order to get precise GPS coordinates of the site. Another section of the Lower Lake that comprised an area east of Big Island from Point Charming to Ferguson Point and north along the shoreline – and including Carson Bay, St. Louis Bay, and Robinson Bay to the mouth of Wayzata Bay – were also surveyed in September (shown in blue and orange on the maps on the following page). This area was chosen because the straight lines produced from the western boundaries of the survey area would make future investigations easier and this section of the eastern lake was small enough to complete quickly. Another reason these two discontinuous sections of the Lower Lake were chosen for this initial survey was their mostly shallow natures; if MHM could pursue an additional sonar survey later in the autumn, the shallower portions of the Lower Lake that would ice-in more quickly would have been completed.

In mid-November, MHM returned to Lake Minnetonka and in five days, surveyed the Upper Lake's Crystal Bay and the remaining portions of the Lower Lake. MHM had to launch the survey boat on the north side of the lake since our 'home port' in Gideon Bay had iced-in, as had St. Albans Bay and Carson Bay. Grays Bay partially iced-in the day after MHM surveyed this shallow bay, the flow of water from the lake to Minnehaha Creek the only force keeping the water moving enough to that point. In considering the navigation of the lake at this time, MHM relied upon the GPS maps linked into the sonar unit for water depth and navigation since Hennepin County had already removed all of the buoys from the lake. The GPS system was invaluable in shoal areas since the lake water levels were down a few feet during the survey.

This map by the Lake Minnetonka Conservation District (LMCD) shows both Upper and Lower Lake Minnetonka. The different colors on the Lower Lake and the Upper Lake's Crystal Bay indicates the 2011 survey area.



The blue and orange sections of the LMCD map are the areas surveyed by MHM in September 2011. The brown, pink, purple, green, yellow, and red sections of the lake were surveyed in November 2011.

MHM launched the survey boat from Grays Bay before it iced over. The removal of the Grays Bays boat docks for the season were not an issue for MHM since the boat is light enough to carry up the boat ramp to the trailer.



This apparatus holds the sonar transducer in place during the survey. Even with the cold temperatures and ice formations, the equipment worked perfectly.



MHM launched from North Arm in the Upper Lake to access Crystal Bay and other areas of the western Lower Lake. Note the ice forming in the background marshes.



Bundled up and recording sonar images on the screen, Merriman marked anomalies by creating waypoints in the sonar unit and making notes in the survey notebook.



MHM also launched the boat from the public access next to the Wayzata Yacht Club, the former site of the Wise Boat Works.



Bundled up on the Lower Lake, Olson operated the boat while Merriman navigated using the sonar unit's GPS. All of the navigation buoys had been removed from the lake but MHM had no issues relying on the GPS for shallow water warnings.



Nautical and Maritime Archaeological Sites in Lake Minnetonka

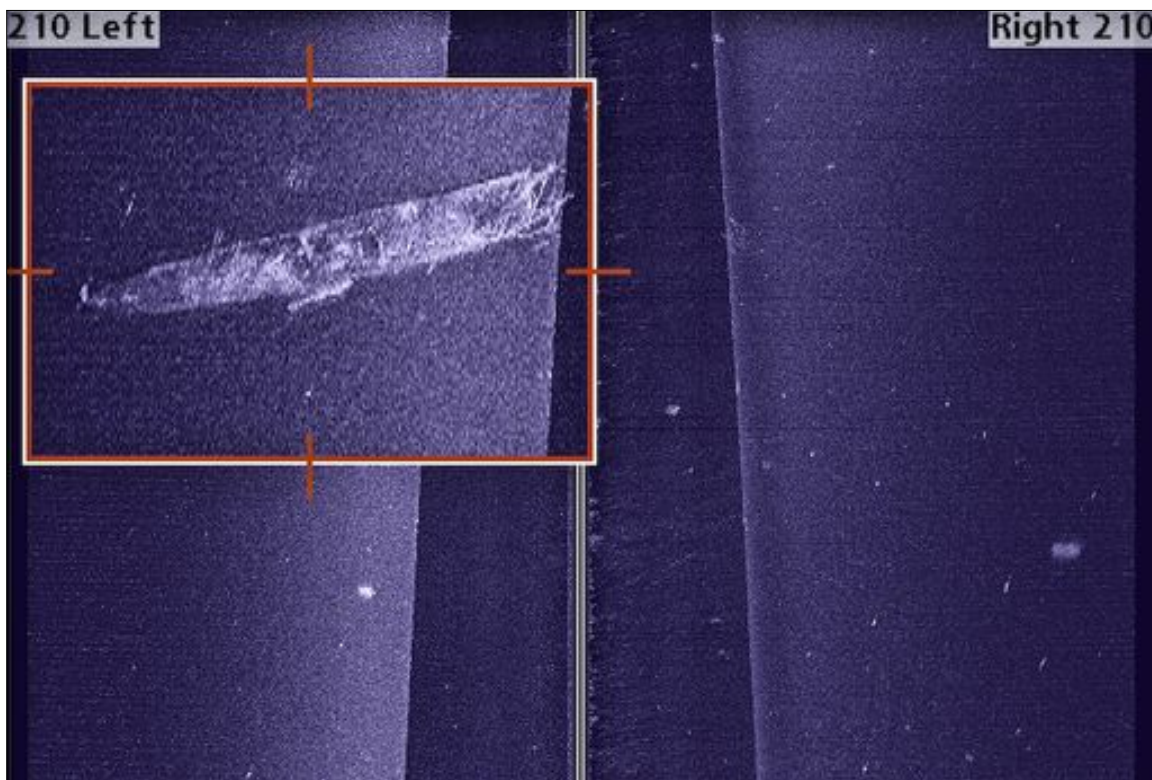
Prior to the beginning of the LMS-1 Project, there were six known wrecks in Lake Minnetonka and acknowledged by the State of Minnesota mentioned above – *Como*, *George/Excelsior*, *Hercules*, *Hopkins/Minnetonka*, *Minneapolis*, and the *White Bear*. However, through hearsay MHM was aware that divers and fishermen knew of other wrecks in the Lower Lake. Of these six wrecks, only *White Bear* had been given a site number (21-HE0281). Upon the completion of the fieldwork portion of this project, MHM completed the required paperwork to have the remaining five known wrecks recognized as nautical archaeological sites. Further, based on a maritime and terrestrial archaeology project MHM conducted in 2007 on Big Island – combined with the sonar survey of Big Island Bay in 2011 – the Big Island Steamboat Pier, Park, and Veteran's Camp is now a recognized archaeological site. Lastly, MHM has definitively identified three new wreck sites in Lower Lake Minnetonka that are now recognized by the OSA. MHM is confident that several more anomalies recorded during the sonar survey are wrecks as well, but without diving on them to gather more information, the ages of these wrecks are at present undetermined and remain 'anomalies' for the time being.

Site 1. *George/Excelsior* (21-HE0399)

Maurice Godfrey and George Day constructed the sternwheeler *George* in 1901. She measured 125 feet long and 22 feet in the beam and was re-designed in 1904 and re-named *Excelsior*. She operated on Lake Minnetonka, becoming one of the Twin City Rapid Transit Company excursion vessels in 1906. She was burned as a spectacle on August 9, 1909, with 5,000 people gathering to watch her demise. *George/Excelsior* was labeled the 'Unknown Stern-wheeler' wreck during the SHPO-sponsored survey of Lake Minnetonka. She lies in 55-65 feet of water, depending on what portion of the wreck is being considered (Edgar 1894, 53; Hall, Birk, and Newell 1997, 28, 58; McGinnis 2010, 90; *Minnetonka Record* 1912a). *George/Excelsior*, like all of the known wrecks lying north of Big Island, has been looted by divers since the 1980s. MHM completed the Minnesota archaeological site form for *George/Excelsior* in December 2011, acquiring her site number at that time.

The *Excelsior* during her time in service of the Twin City Rapid Transit Company (Maritime Heritage Minnesota Collection).





A sonar image of *George/Excelsior* recorded on 16 November 2011 by MHM. Note the cylinder timbers extending from the wreck's stern.

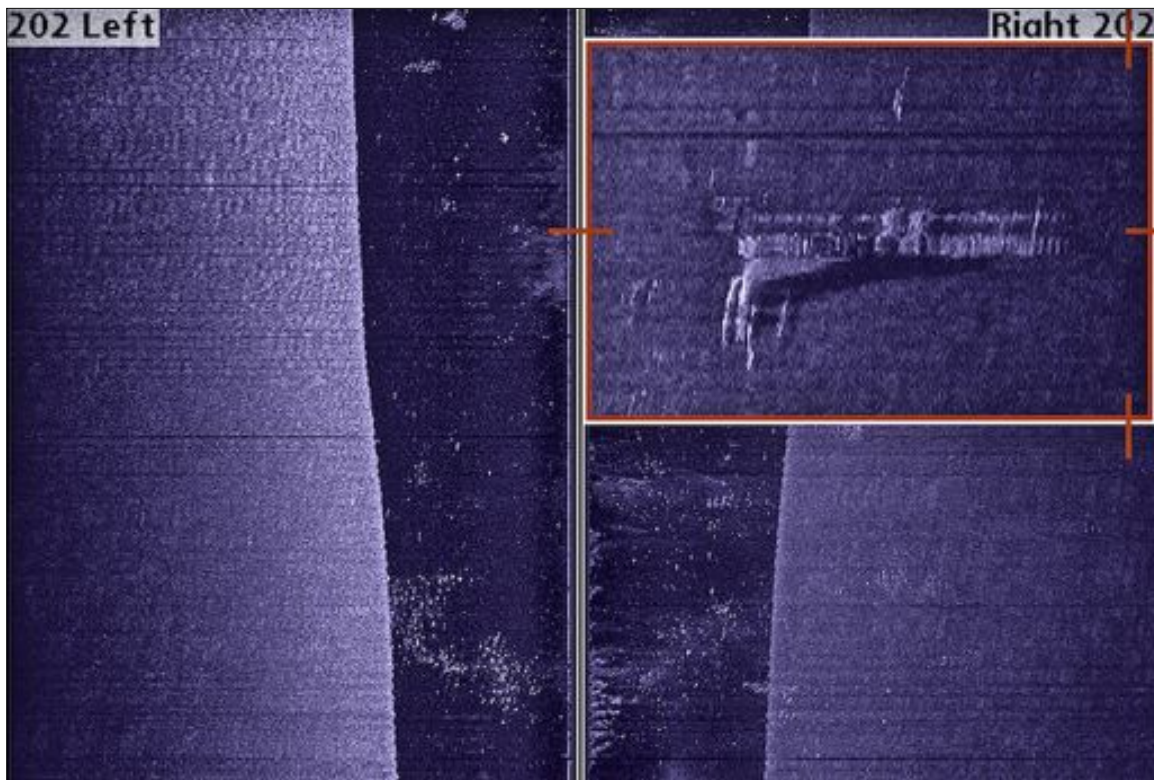
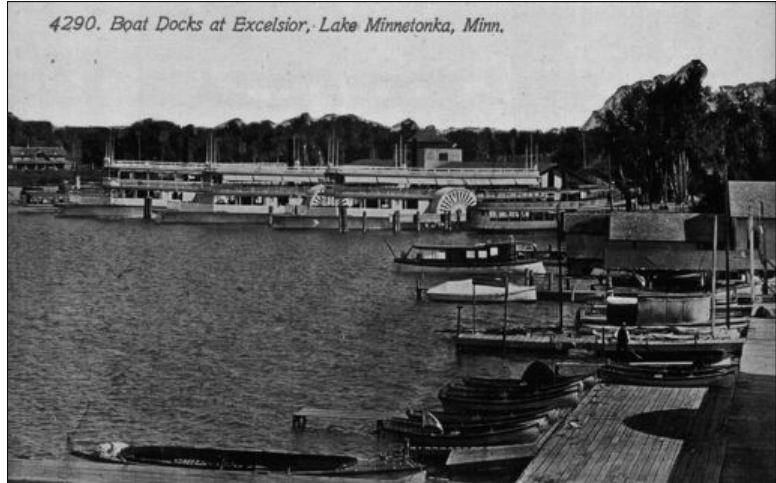
Site 2. *Minneapolis* (21-HE0403)

Minneapolis, and her sisters *Minnetonka* and *St. Paul*, were constructed in 1906 by Captain John R. Johnson at Solberg Point for the Twin City Rapid Transit Company to act as a ferry for their customers traveling from Excelsior to the Big Island Amusement Park. The ferries were 109 feet long with a 35-foot beam, were double-ended with rudders at both bow and stern, and were propelled by sidewheel. After one season of disappointing performance, the ferries were lengthened to 142 feet long with a 39-foot beam, a design that was better suited to handling her heavy mechanical equipment. With the closing of the amusement park, *Minneapolis* was redundant and it was planned for her to be set ablaze in the hopes to make some last profit from her, emulating the success of the *George/Excelsior* burning in 1909. She was burned on 8 August 1912, witnessed by a crowd that rivaled the 1909 show, with people traveling from the Twin Cities to watch (*Minneapolis Morning Tribune* 1912; *Minneapolis Tribune* 1899; *Minnetonka Record* 1906b, 1912a, 1912b; Olson 1976, 308; Construction Records: Ledgers, TCRT Records 1905-1907).

The *Minneapolis* wreck site lies in 75-80 feet of water and was labeled the 'Unknown Side-wheeler' wreck during the SHPO-sponsored survey of Lake Minnetonka (Hall, Birk, and Newell 1997, 28, 58). Sonar images suggest she was substantially damaged during the wrecking process and burning; the site appears to be approximately 89 feet long. The wreck could be in more than one piece, however, and her full length may be on the bottom with the pieces lying next to each other. Another possibility is that *Minneapolis* came to rest near or on top of another wreck, possibly the *Saucy Kate*, the

aforementioned steam launch owned by Captain Johnson that burned at Solberg Point, and then was scuttled in deep water off Gale Island in 1899. The *Minneapolis* site is the most interesting known nautical archaeological site in Lake Minnetonka because of her complex sonar profile. *Minneapolis*, like all of the known wrecks in Lake Minnetonka, has been looted by divers since the 1980s. MHM completed the Minnesota archaeological site form for *Minneapolis* in December 2011, acquiring her site number at that time.

Minneapolis and her sisters, *Minnetonka* and *St. Paul*, are the large white sidewheelers seen in the background. The vessel next to *Minnetonka* is the *Puritan*. This postcard is from 1907 or later (Maritime Heritage Minnesota Collection).



A sonar image of *Minneapolis* recorded on 9 September 2011 by MHM.

Sites 3, 4, and 5. *White Bear* (21-HE0281), *Hopkins/Minnetonka* (21-HE0396), *Como* (21-HE0397)

The first three nautical archaeological sites recognized in Lake Minnetonka are Streetcar Boats – the *White Bear*, *Hopkins*, and *Como* – designed by Royal C. Moore and constructed under his supervision at the TCRT 31st Street shops in Minneapolis. The Streetcar Boats were 70 feet long, 14.83 in the beam, with a 5 foot draft unloaded and a 5.62-foot draft when they were fully loaded. Their hulls were constructed of cypress with white oak frames, and their main deck seats were identical to those on the TCRT streetcar line, comprised of metal framed wicker seats. The upper decks had wooden benches and high railings, and the fleet was painted canary yellow like the trolley cars. The boats carried 150 horse power triple expansion steam engines, 250 psi water tube boilers, and their propulsion depended on a 46 inch diameter propeller. Their sister, the 73-foot long, 14.42-foot wide *Excelsior* joined the fleet in 1915 after her construction in Excelsior (Olson 1976, 308).

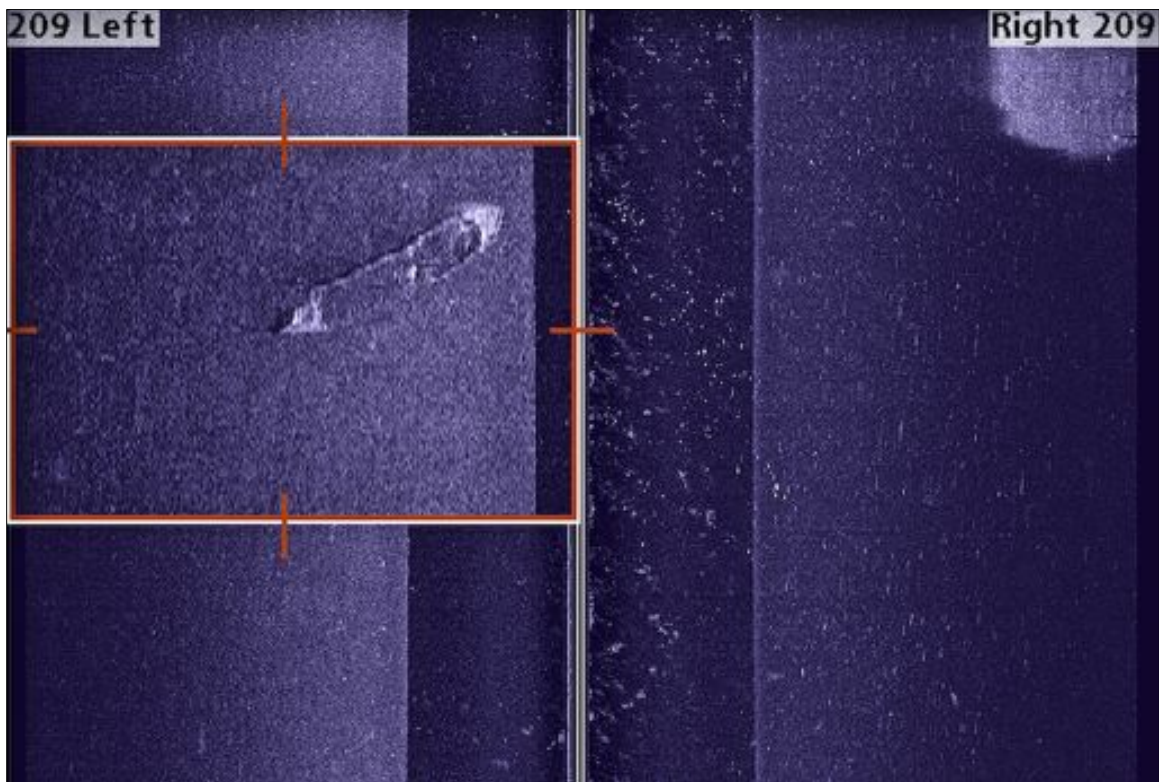
As previously mentioned, three of the Streetcar Boats were sunk north of Big Island in 1926 after being partially dismantled, as recorded in TCRT construction records that logged labor costs. Prior to their scuttling, the superstructures of the boats were removed and their engines, boilers, and seats recycled. At this time, *Como*, *Minnehaha*, and *White Bear* went to the bottom and as discussed above, *Hopkins* was purchased by Captain George Hopkins and operated on the lake as *Minnetonka* until her sinking in 1949 (Construction Records: Ledgers, TCRT Records 1926, 1928).

Minnehaha is not listed as a nautical archaeological site here because she was illegally raised from the bottom of the lake by private individuals in 1980. This story is well known and this report will not delve into this subject in depth here. However, MHM does not advocate the raising of sunken hulls or artifacts from the bottom of any lake, river, or stream in Minnesota without: 1. Permission from the OSA; 2. A large and appropriate amount of money on hand; and 3. The nautical archaeological and artifact conservation expertise to conduct such a project. *Minnehaha*'s sisters – and all of the known wrecks – have been damaged from looting by SCUBA divers and dragging anchors over the years as well, as documented by the Hennepin County Sheriff's Department from complaints by a conscientious sport diver (SHPO 1993). Minnesota's submerged archaeological sites – wrecks as well as artifacts – are protected by the Minnesota Field Archaeology Act of 1963. Minnesota recognized early on that the protection of our shipwrecks and submerged cultural resources are important to our shared history. Beyond this, all of Minnesota's wrecks also fall under Federal protection with the Abandoned Shipwreck Act of 1987.

MHM completed the Minnesota archaeological site forms for *Como* and *Hopkins/Minnetonka* in December 2011, acquiring their site numbers at that time, and filed a site form update for *White Bear* with the OSA.

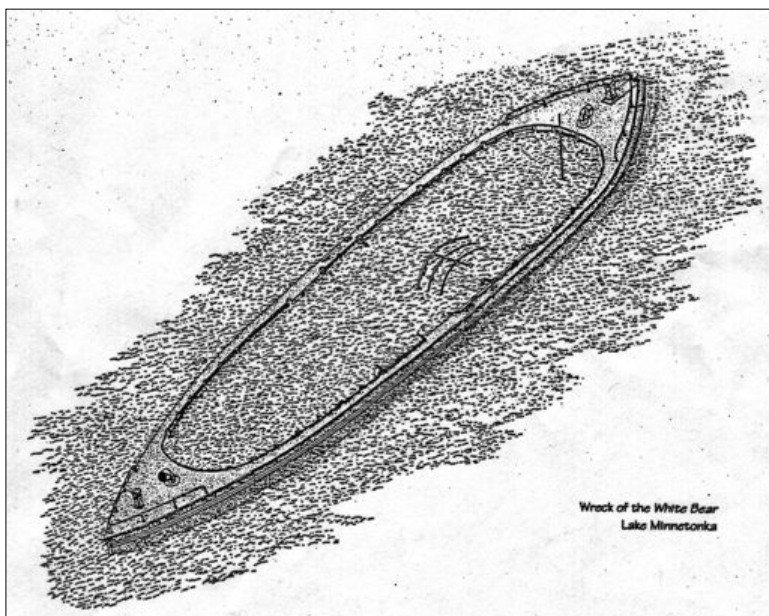
White Bear (21-HE0281)

The White Bear picking up passengers at Shady Isle on the Upper Lake before 1911 (Maritime Heritage Minnesota Collection).

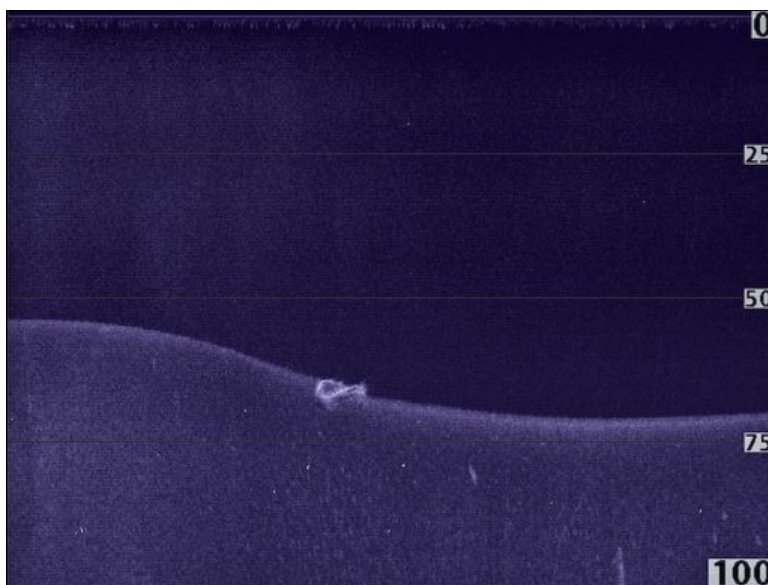


A sonar image of *White Bear* recorded on 17 November 2011 by MHM. Note the railing around the stern to the right.

This perspective drawing of the *White Bear* was created during the targeted 1996 survey (Hall, Birk, and Newell 1997, 57).



The *White Bear* as recorded by the sonar's down image feature when the survey boat crossed directly over her.

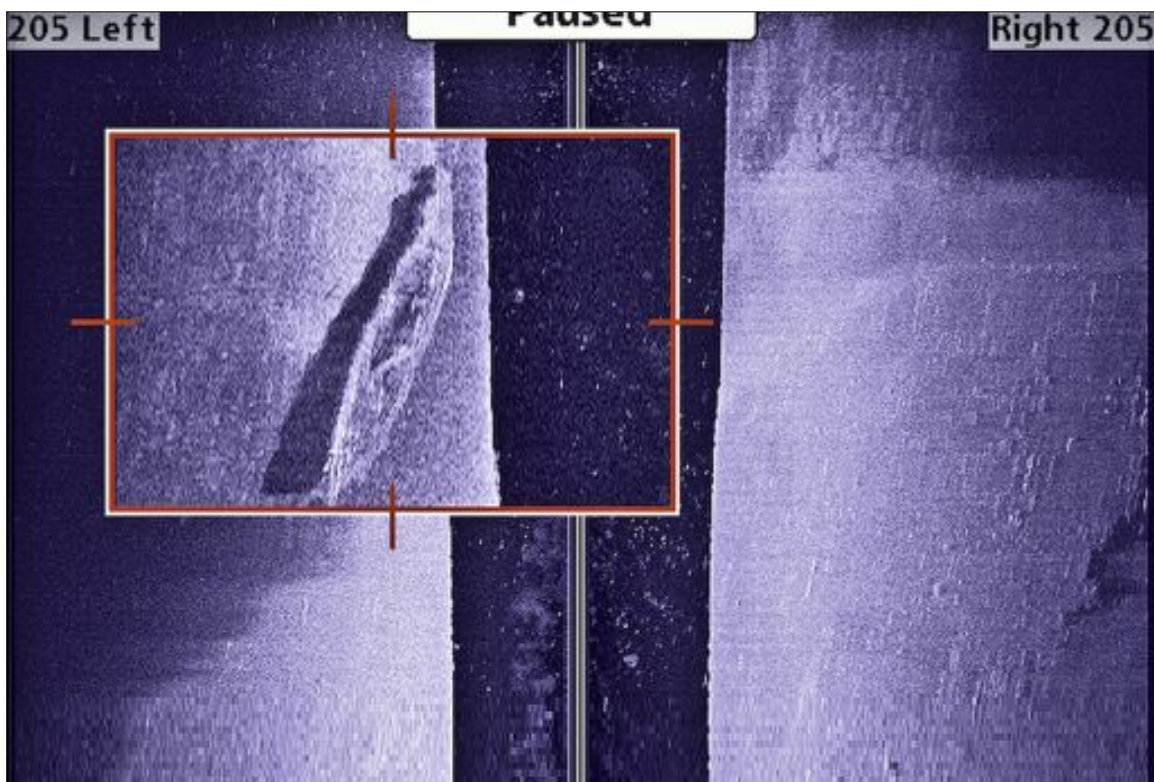


***Hopkins/Minnetonka* (21-HE0396)**



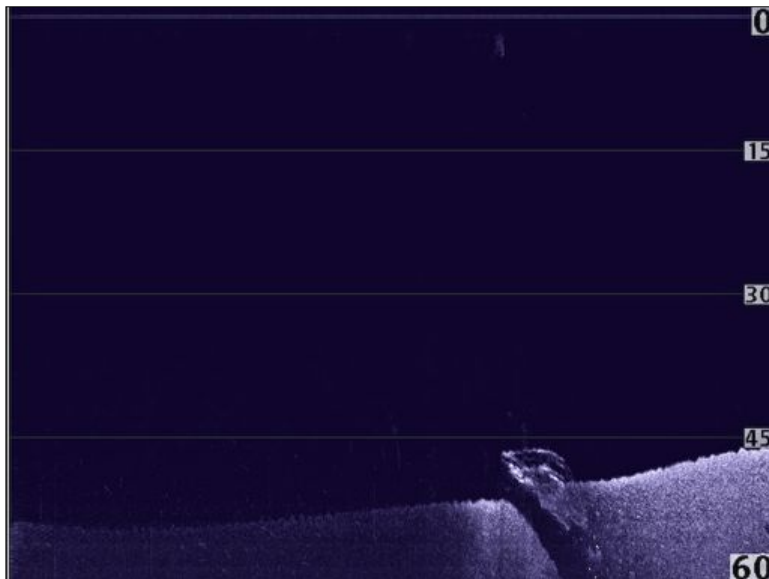
The *Hopkins* after 1911 (Reserve Album 111 #49, Minnesota Historical Society).

The *Minnetonka*, painted white, ran excursions out of Excelsior for over 20 years after the Streetcar Boats ceased operations (*Lake Minnetonka Scrapbook*, M56, Minnesota Historical Society).



A sonar image of *Hopkins/Minnetonka* recorded on 17 November 2011 by MHM.

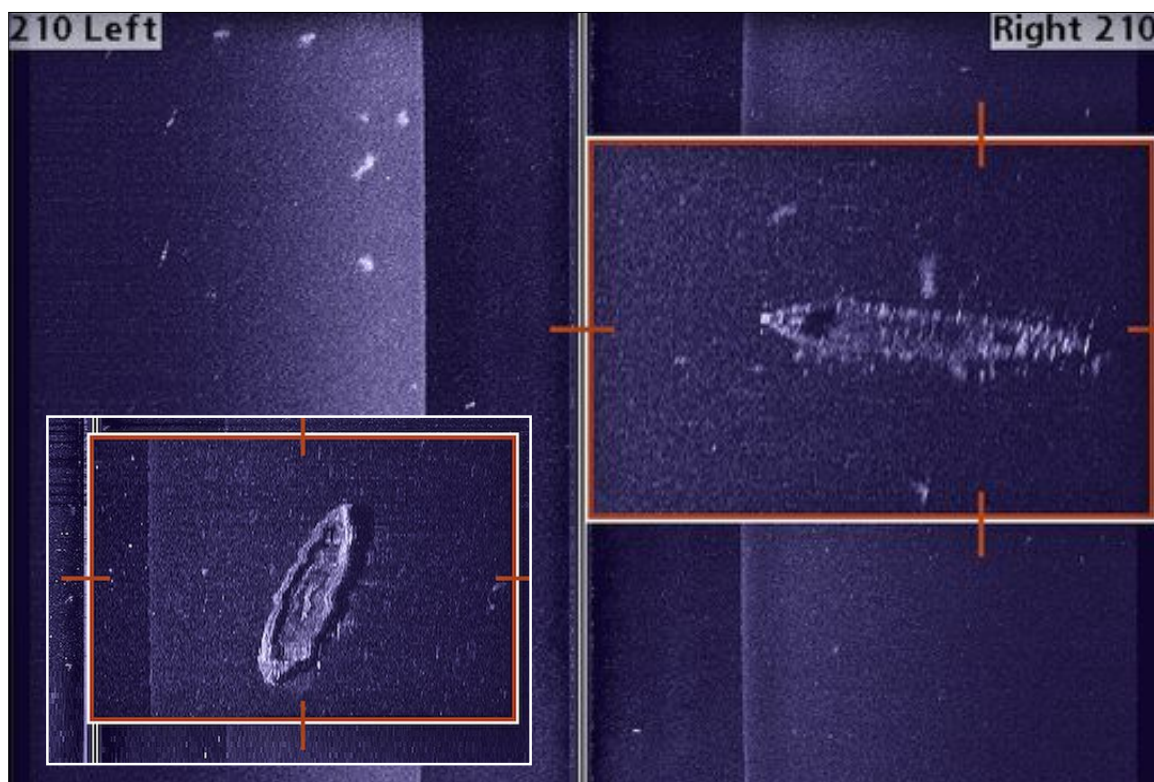
The *Hopkins/Minnetonka* as recorded by the sonar's down image feature when the survey boat crossed directly over her.



Como (21-HE0397)



The *Como* at the Zumbra Heights Streetcar Boat stop in the Upper Lake after 1911 (Maritime Heritage Minnesota Collection).



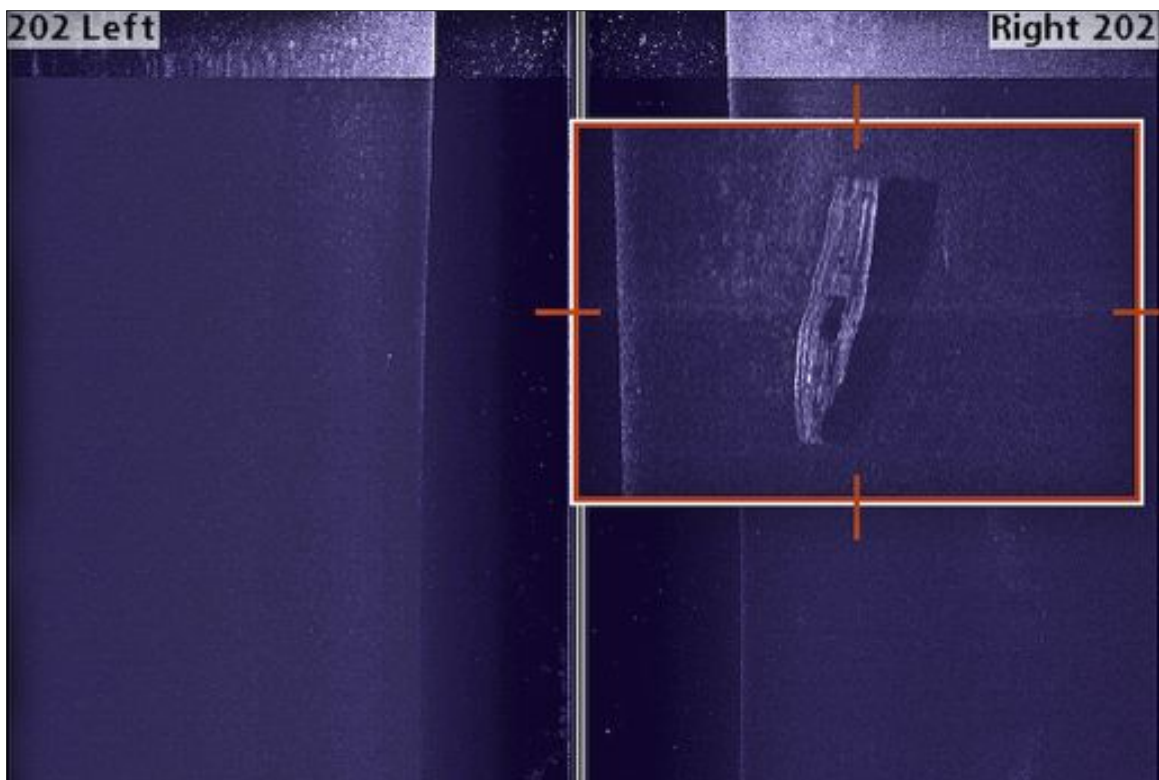
The inset image of *Como* on the left shows how waves can affect a sonar recording, making the hull look wavy. A second pass, at a slightly different speed, produced the image on the right. Both images were recorded on 17 November 2011 by MHM. The *Como*'s propeller – *an artifact* – was stolen from the wreck in 1993 and was repatriated back to the State of Minnesota, with ownership transferred to the Minnesota Transportation Museum for use in the reconstruction of the *Minnehaha*.

Site 6. *Hercules* (21-HE0398)

The steam tugboat *Hercules* was constructed between December 1916 and May 1917 by the Twin City Rapid Transit Company at their Excelsior shop. The tug measured 50 feet long, 12.5 feet in the beam, and she was launched in early June 1917 for use in TCRT dock and boat maintenance. *Hercules* was sunk in 1926 with the *Como*, *Minnehaha*, and *White Bear* (Construction Records: Ledgers, TCRT Records 1926; Olson 1976, 308), and lies in 45-50 feet of water. Her superstructure and machinery were removed from her hull prior to her scuttling. *Hercules*, like all of the wrecks lying north of Big Island, has been looted by local divers since the 1980s, as reported to the Hennepin County Sheriff's Department in 1993. MHM completed the Minnesota archaeological site form for *Hercules* in December 2011, acquiring her site number at that time.



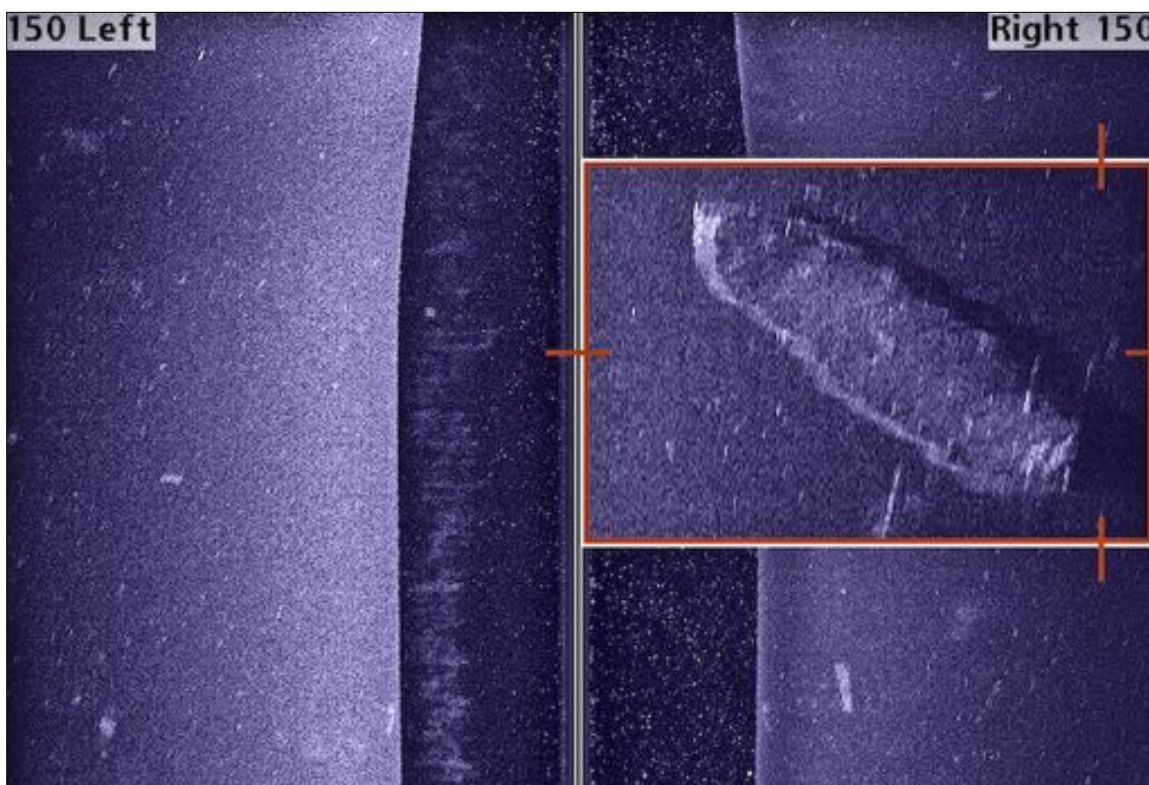
Hercules moored next to a dredge in Excelsior Bay around 1925, a year prior to her dismantling and sinking (Reserve Album 111 #55, Minnesota Historical Society).



A sonar image of *Hercules* recorded on 16 November 2011 by MHM.

Site 7. Wayzata Bay Wreck (21-HE0401) First Recognized by MHM

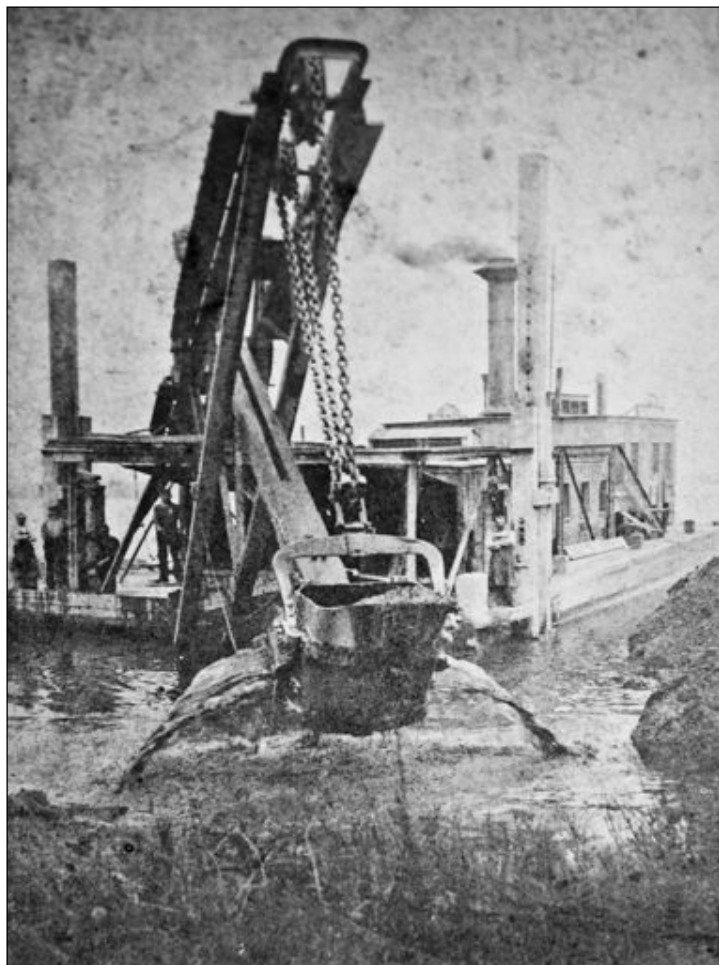
The Wayzata Bay Wreck is approximately 70 feet long, 20 feet wide, and lies in 35-45 feet of water. MHM thought that there was a wreck in Wayzata Bay as far back as 2002 when Merriman and Olson saw divers in this general area. MHM suspects the wreck may have a torpedo stern, suggesting she was designed and constructed by Royal Moore. MHM completed the Minnesota archaeological site form for the Wayzata Bay Wreck in December 2011, acquiring her site number at that time.



A sonar image of the Wayzata Bay Wreck recorded on 17 November 2011 by MHM.

Site 8. St. Albans Bay Wreck (21-HE0400) First Recognized by MHM

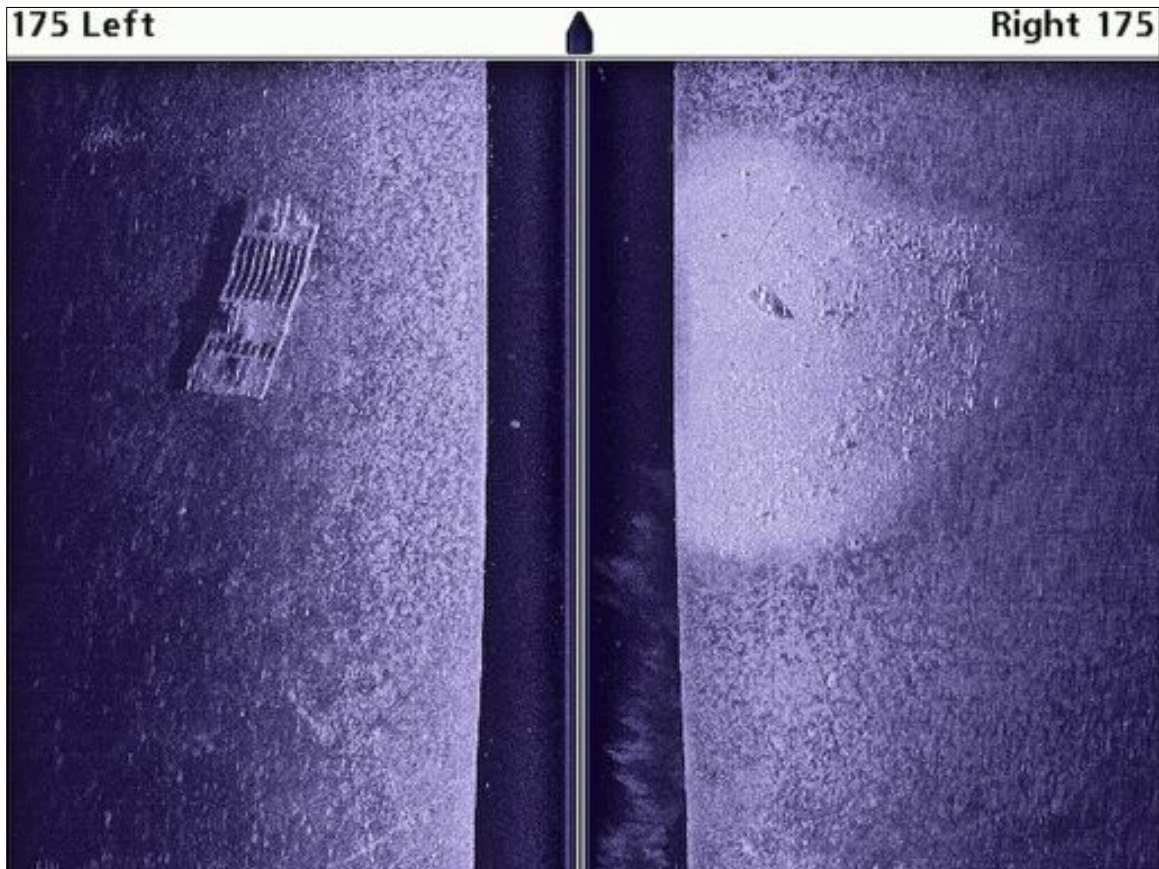
The St. Albans Bay Wreck is a wooden dredge of substantial construction and size. She lies in 37-40 feet of water, measures approximately 60 feet long and 23 feet in the beam, and her original size when built is not currently known. This wreck may be *Dredge No. 2*, a vessel constructed in Wayzata in 1888 and owned by Hennepin County, used to maintain the lake's shores and dig channels. *Dredge No. 2* burned and sank in 1896, and while her machinery was likely salvaged, her hull may have remained on the bottom of the lake. Another candidate for the St. Albans Bay Wreck may be one of Captain John R. Johnson's dredges built for his Lake Minnetonka Dredging Company located at nearby Solberg Point. He owned several dredges, constructed in 1899, 1900, 1903 (*Rambler*), and 1906, and he also moved a dredge he was using in Minneapolis to Lake Minnetonka in 1910. Johnson's last known dredge was built over the winter of 1925-1926 and was described as "26 feet wide, exclusive of spuds, and 70 feet in length. It will have a freeboard of five feet" (*Excelsior Cottager* 1896b; McGinnis 2010, 58-59; *Minnetonka Record* 1925).



The old dredge boat, which has done service on the lake for the past twelve or fifteen years, went up in smoke last Wednesday. It is supposed that the fire started in the living department, as Mr. Sigafos noticed a mattress blazing after he had knocked in a window to locate the fire. The supposition is that the smoke stack became overheated and ignited the woodwork. The men were working on the crain, in the forward part of the boat, when the alarm was given and before they could reach the stern the flames were coming out of the roof. The crew at once attempted to get water on the burning boat, but as there were no buckets and only one small piece of hose, their efforts were not very successful. When they saw the boat could not be saved they at once scuttled her and she sank to the bottom, where she will remain until the commissioners decides the question of rebuilding. A dredge boat is an absolute necessity on the lake, as the Narrows must be kept clear and a passage kept open for steamers under the draw-bridge. As the engines are not seriously injured it is thought the boat will be raised as soon as the lake freezes up and work on the new boat begun at once. This accident will delay the work on the new bridge, but it is said the delay will be only temporary. The old dredge boat cost Hennepin County some \$13,000 and it is stated that there is no insurance. Town Supervisor Andrew Tharson was out on a tour of inspection and saw the old dredge boat burn.

Dredge No. 2 at work in Lake Minnetonka in 1891 and news of her burning in 1896 (HE6.3r63, Jacoby, Minnesota Historical Society; Excelsior Cottager 1896b).

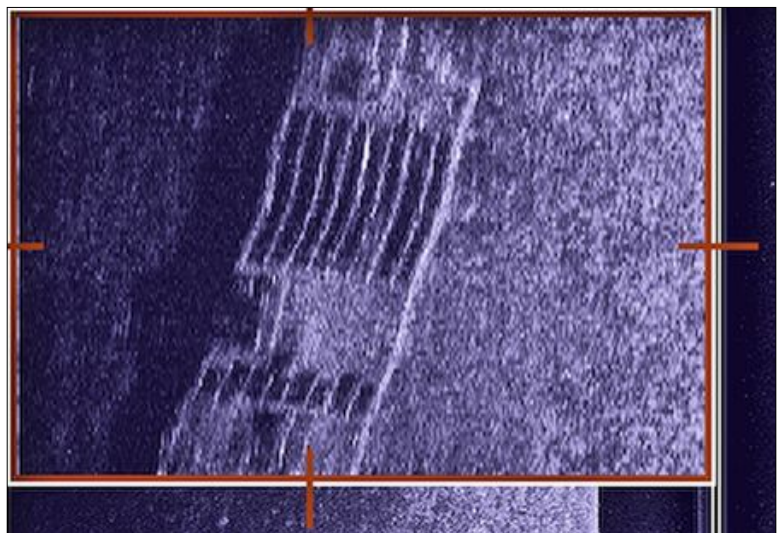
MHM suggests that the closeness in size of the St. Albans Bay Wreck and the 1926 dredge indicates they may be the same vessel; one end of the wreck is damaged, as shown in the sonar image, shortening the wreck below the 70-foot length of the 1926 dredge. However, Captain Johnson's dredging company also had an older dredge in service in the mid-1920s, the *Napoleon* (McGinnis 2010, 188), and with the introduction of the new dredge in 1926 the company may have scuttled the old boat in St. Albans Bay. Interestingly, life-long Excelsior resident Jeff Jensen told MHM that he had spoken with some divers in the early 1960s who were trying out their new SCUBA gear in St. Albans Bay. They reported that while swimming along, they "ran into a wall of wood" – undoubtedly the St. Albans Bay Wreck. MHM completed the Minnesota archaeological site form for the St. Albans Bay Wreck in December 2011, acquiring her site number at that time.



A sonar image of the St. Albans Bay Wreck recorded on 23 September 2011 by MHM.

A close-up of the St. Albans Bay Wreck.

The image shows the internal construction of the what MHM believes is a dredge, with her deck house missing. Stringers are visible, as are objects attached to the deck.



NEW DREDGE TO BE READY TO LAUNCH NEXT SPRING

CAPT. JOHNSON WILL BUILD GIANT NEW DREDGE HERE

New Craft Will Have All Modern Improvements — Will be Ready For Work Early Next Spring

Capt. John R. Johnson, veteran navigator and dredging contractor of Lake Minnetonka, will add to his fleet of dredges by building a large new craft in Excelsior this winter. The new boat will be 26 feet wide, exclusive of spuds, and 70 feet in length. It will have a freeboard of five feet; that is, its deck will extend five feet above the surface of the water.

Capt. Johnson now has a crew of men at work at Solberga Point building barges. There will be three of these; two will be 16x40 feet and a third barge will be 16x50 feet. The cost of the dredge will be approximately \$15,000.

The new dredge will be a combination outfit with provision for the four varieties of dredging, the drag line, the dipper, the clam shell and the orange peel. The drag line system used in making improvements with sloping, durable banks, such as shoreline roads. The dipper is for removing reefs and for other hard dredging where the only consideration is the removal of obstructions. The orange peel and the clam shell types are for deepening the water where the bottom is soft.

Capt. Johnson looks for a busy season at the lake next year. His dredges will resume the work of clearing Excelsior Bay as soon as the ice goes out.

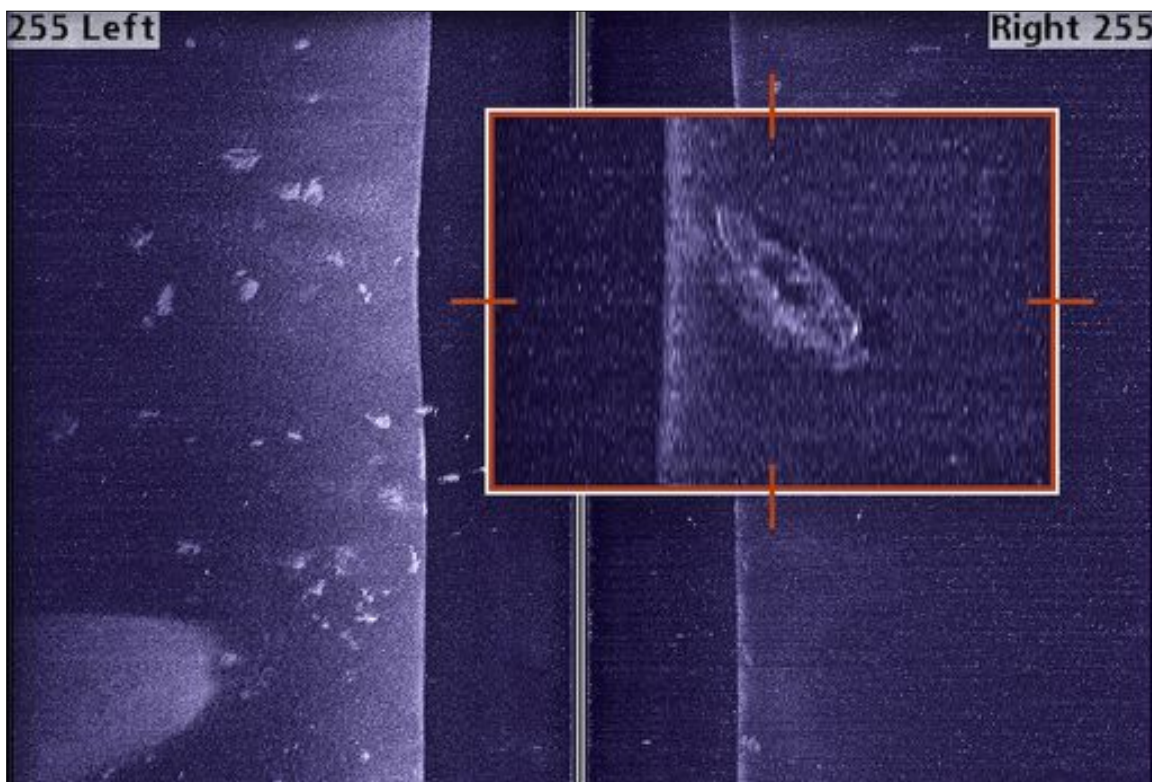
Above and Left: Captain John R. Johnson's new dredge was announced in late 1925 (*Minnetonka Record* 1925).

One of Captain Johnson's dredges, identified as the *Napoleon* (McGinnis 2010, 188), at work in Lake Minnetonka around 1925. During her working life, the St. Albans Bay Wreck would have resembled this vessel (HD6.3r2, Minnesota Historical Society).



Site 9. Wreck 1 (21-HE0404) First Recognized by MHM

Wreck 1 is approximately 50 feet long, 15 feet wide, and lies in 60-65 feet of water. From the sonar image the wreck may be a steam or gasoline launch, constructed in the late 19th or early 20th Centuries. The sonar image also resembles a sailing boat but the wreck's estimated length suggests she is a motorized vessel. There are no historical records that specifically mention a vessel of this size and type sinking where MHM located her, but she does resemble several Lake Minnetonka steam and gasoline launches documented pictorially over the decades. MHM completed the Minnesota archaeological site form for the Wreck 1 in January 2012, acquiring her site number at that time.



A sonar image of Wreck 1 recorded on 17 November 2011 by MHM.

Site 10. Big Island Steamboat Pier, Park, and Veterans Camp (21-HE0402) First Recognized by MHM

The Big Island Amusement Park was constructed during 1905-1906 by the TCRT. The development of the park was a huge endeavor, one dependant on the construction of an incredible amount of infrastructure such as dredging the bay for steamboat traffic and strengthening the shoreline, the construction of the steamboat pier, the placement of electrical lines and conduits, sewers, a well, the grooming of walkways with pergolas, the placement of benches, the construction of buildings, and the transportation of building materials to the island. The buildings on the island, of Spanish Mission-style design, consisted of a water tower, commissary, women's and men's dormitories, toilets, music hall, staff kitchen, a pump house, ice house, boat house, and picnic kitchens. The amusements constructed for visitor's included a roller coaster, old mill ride, a 'fun factory', a carousel, picture gallery, kinetoscope, and a hooligan slide, along with 48 Johnson rowboats for use in the bay. TCRT's workmen rushed to complete enough of Big Island Park's amusements and infrastructure in time for the grand opening on 6 August 1906. In reality the



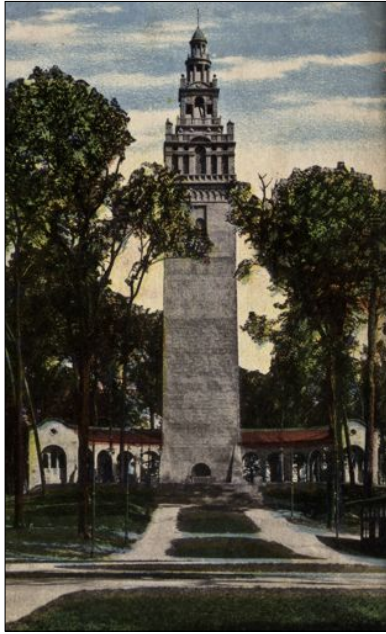
A Big Island Park ad (*Minnetonka Record* 1907).

park was not finished until the following year. However, “Innes and his famous New York band” served as the main entertainment at the music hall and were well received, playing at the island for over a week. The Park was open between 1906 and 1911, with the music hall hosting the likes of John Philip Sousa’s band and the Minneapolis Orpheum Theatre Orchestra for the entertainment of visitors. Ultimately, the Park was unprofitable, and it closed in late August 1911 and it was mostly dismantled during 1918, with any metal used as reinforcements for its mission-style reinforced concrete architecture recycled for the World War I effort (*Minnetonka Record* 1906c, 1906d, 1906e; Olson 1976, 202-203, 205; Construction Records: Ledgers, TCRT Records 1906-1908, 509, 513, 515-517, 519).

This scene at the Big Island Steamboat Pier is from the Park’s first season, as shown by the original design of the *Minnetonka*, a sister to the *Minneapolis*. The smaller boat is the *Plymouth*, one of Captain Johnson’s former vessels (Maritime Heritage Minnesota Collection).



Two TCRT boats, the sternwheeler *St. Paul*, a sister to *Minneapolis*, and *Puritan*, one of Captain Johnson’s former boats, at the Big Island Steamboat Pier (MH5.9ORp24, Minnesota Historical Society).



Left: The Big Island Tower (Maritime Heritage Minnesota Collection).

A picnic kitchen on Big Island (Maritime Heritage Minnesota Collection).

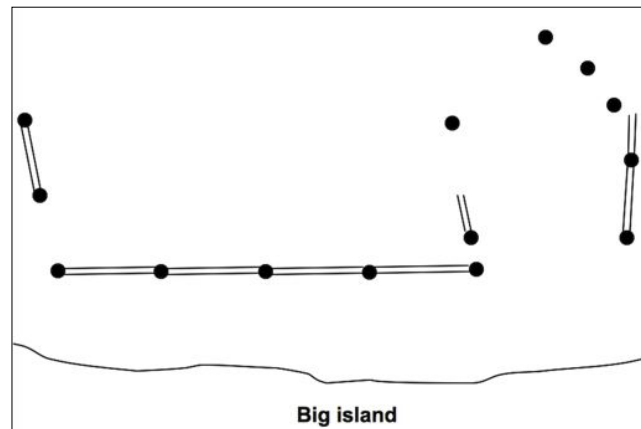


A summer day at Big Island Amusement Park (Maritime Heritage Minnesota Collection).

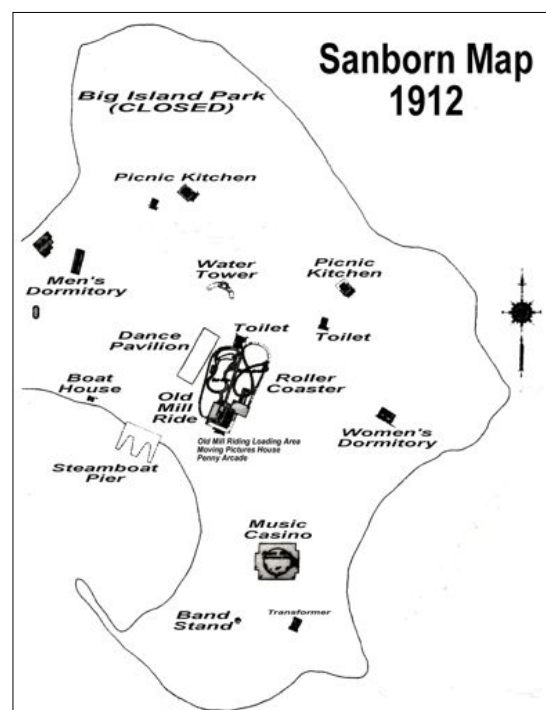


The Big Island Steamboat Pier as it looked during the years of the park's operation. Note the pier's construction of pilings and lateral wooden planks (MH5.9ORp18, Minnesota Historical Society).

This simple diagram of the Big Island Steamboat Pier remains is the product of about one hour of snorkeling conducted by MHM in 2007. While not to scale, this quick reconnaissance investigation proved that at least some of the pier still exists in Big Island Bay. MHM recorded sonar readings in this area but the amount of milfoil makes the pilings difficult to discern.



A year after the park's closing, the Sanborn Insurance Company conducted a survey of the closed park and noted the construction characteristics of the buildings there (Sanborn Map Company 1912).



In 1923, the Big Island Veterans Camp was established as a quiet place for World War I veterans and their families and some years later it was opened to all veterans. MHM conducted an examination of the roller coaster base area, located and detailed the contours of the old mill ride, and completed an extensive walking survey of the island in 2003 while on staff with the MTM. At that time, many foundations of the Big Island Amusement Park buildings and amusements survived, along with infrastructure constructions such as sewers. The City of Orono purchased the land by 2006 and since that time, most of the Veterans Camp buildings have been demolished. In 2007, at the invitation of Orono Community Education's Big Island Summer Institute, MHM taught a *gratis* children's archaeology program and directed a brief survey of five mission-style arch bases that MHM surmised had survived just under the surface. At this time, MHM also briefly recorded a section of the Steamboat Pier remains (Merriman and Olson 2007). MHM completed the Minnesota archaeological site form for the Big Island Steamboat Pier, Park, and Veterans Camp in December 2011, acquiring its site number at that time.

An example of one arch base uncovered during the Big Island Summer Institute's 'Dig on This' archaeology program directed by MHM.



The red arrow indicated where the remains of this arch base, located relatively close to the surface, was uncovered.



This concrete foundation is the base for the women's dormitory from the Big Island Amusement Park. Similar foundations could be found scattered around the island in 2007.



The Sonar Anomalies

Maritime Heritage Minnesota noted 152 anomalies during the LMS-1 Project. Of these, 75 appear to be human-made objects that may warrant further investigation. MHM is confident that one of these anomalies is a wreck, but her age as of yet cannot be determined and therefore remains an 'anomaly' for the time being. MHM is considering another 13 anomalies as 'probable wrecks' upon close examination of their sonar signatures, and 9 other anomalies are possible wrecks. One anomaly is a human-made object and MHM has a theory as to its identification, and another anomaly resembles a submerged burial mound but this is very unlikely. Lastly, 50 recorded anomalies may be human-made objects and MHM can hypothesize about their nature, but without further investigations, they are unidentifiable. MHM will prioritize and investigate these anomalies by SCUBA in the near future if all goes as planned.

Anomaly 1

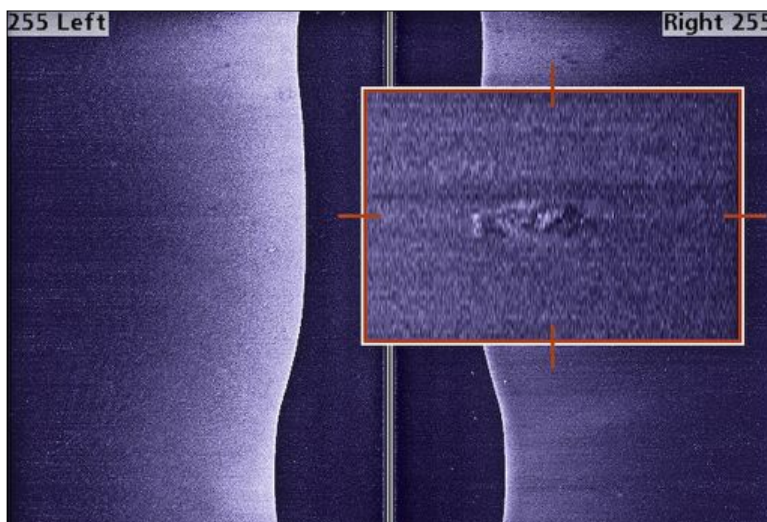
Recorded: 11/21/2011

Identification: Probable Wreck

Size: Approximately 20 feet long

Location: Crystal Bay

Analysis: The anomaly resembles a boat with a scow end, to the left



Anomaly 2

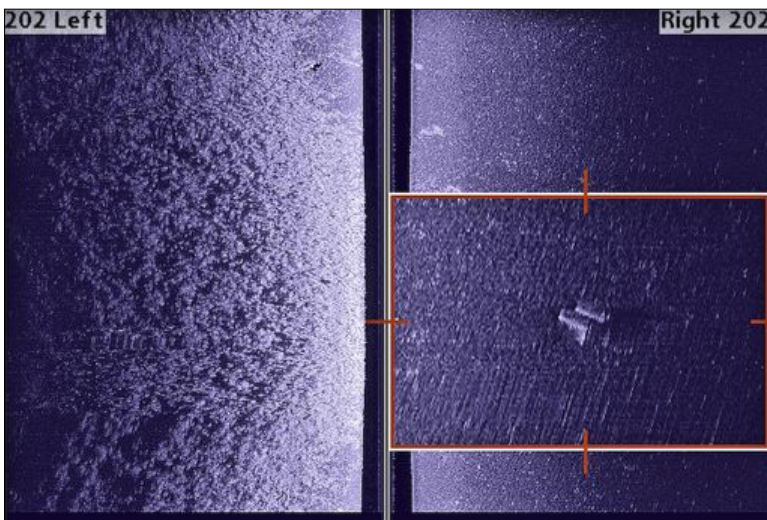
Recorded: 11/21/2011

Identification: Possible Pontoon Boat Wreck

Size: Approximately 8 by 13 feet

Location: Crystal Bay

Analysis: The anomaly resembles an overturned pontoon boat



Anomaly 3

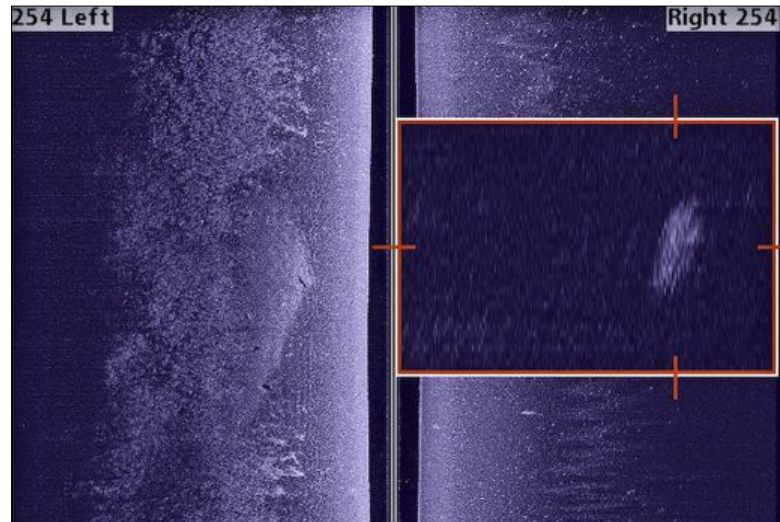
Recorded: 11/21/2011

Identification: Probable Wreck

Size: Approximately 20 feet long

Location: Crystal Bay

Analysis: The anomaly resembles an overturned boat, with the bow toward the top and the stern to the bottom

**Anomaly 4**

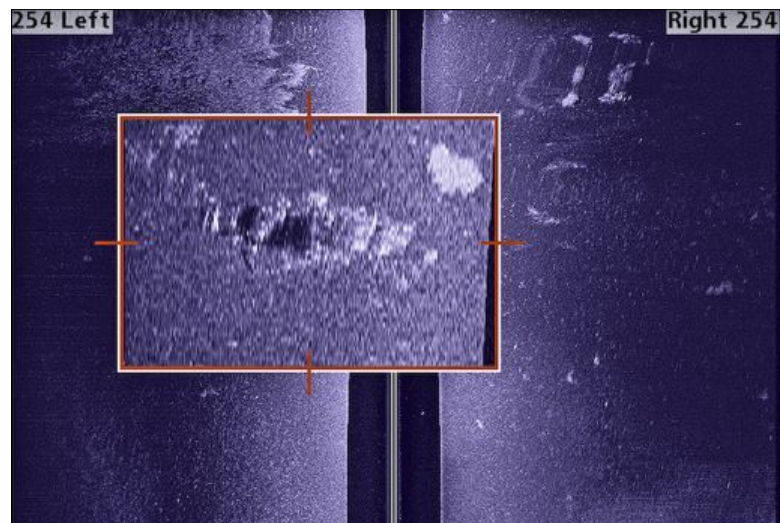
Recorded: 11/21/2011

Identification: Probable Wreck

Size: Approximately 36 feet long

Location: Crystal Bay

Analysis: This anomaly is strongly suggestive of a boat

**Anomaly 5**

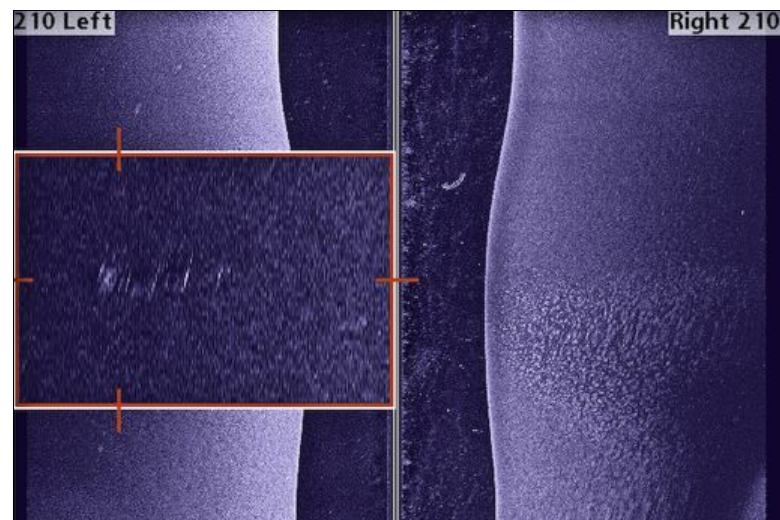
Recorded: 11/21/2011

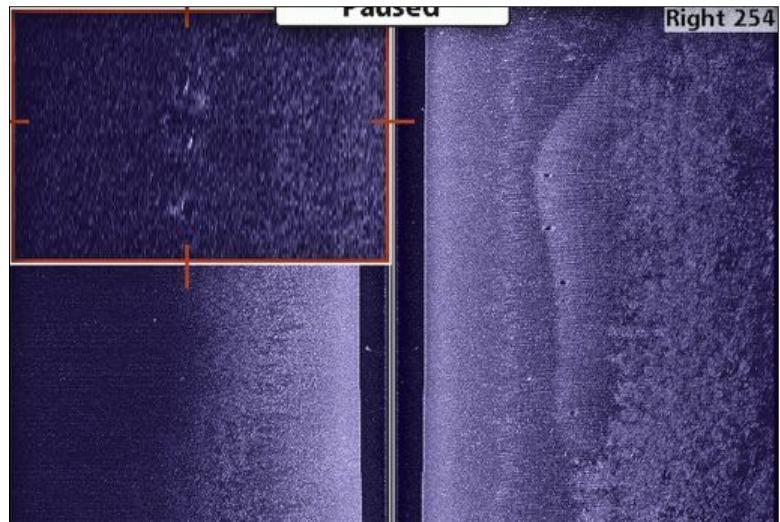
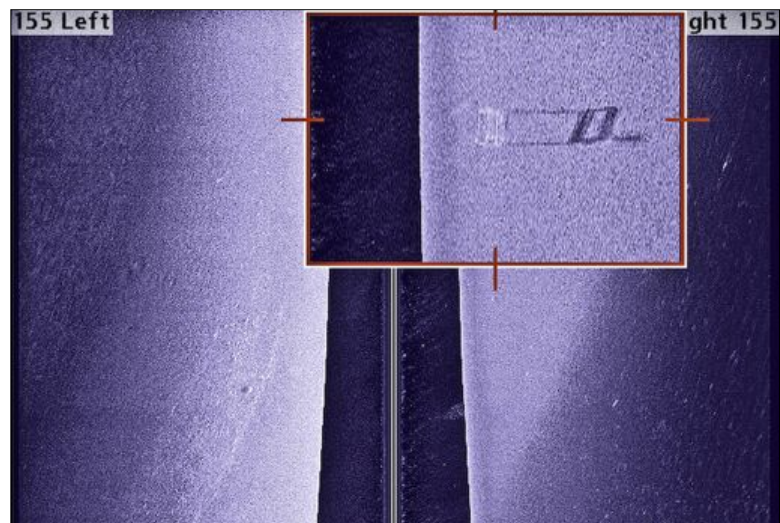
Identification: Probable Wreck

Size: Approximately 13 feet long

Location: Crystal Bay

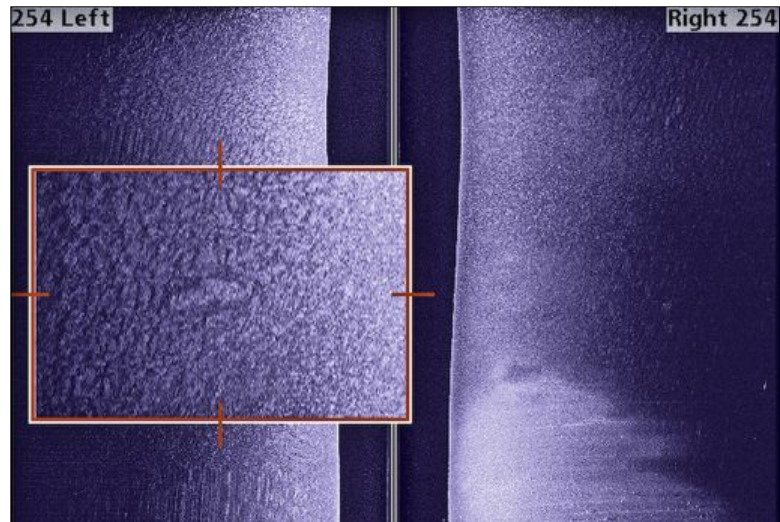
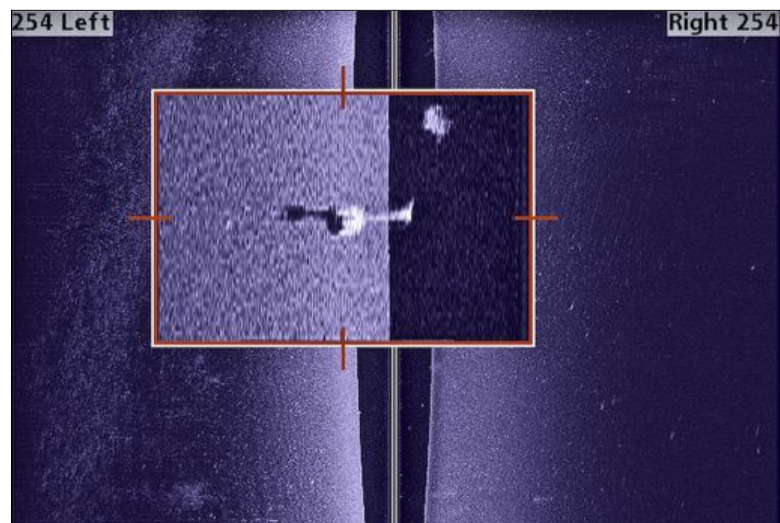
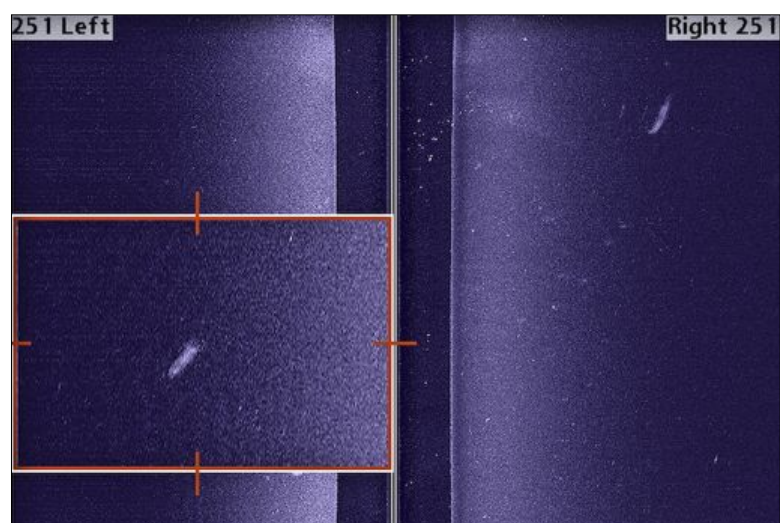
Analysis: This anomaly is probably a small boat

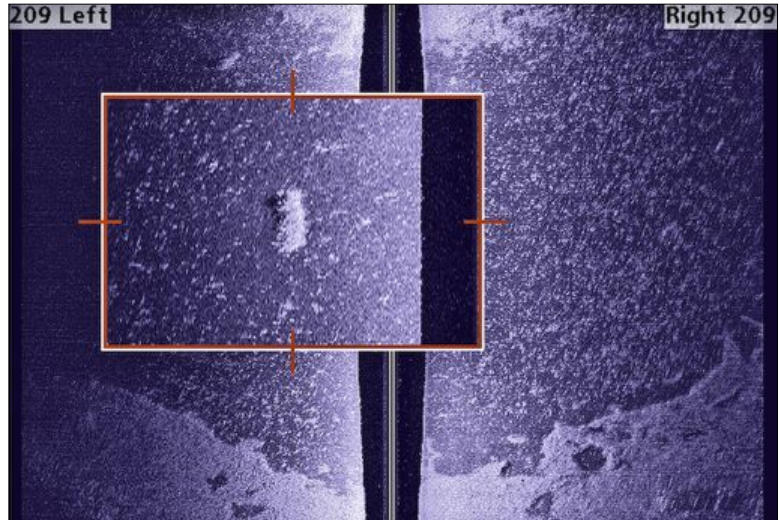
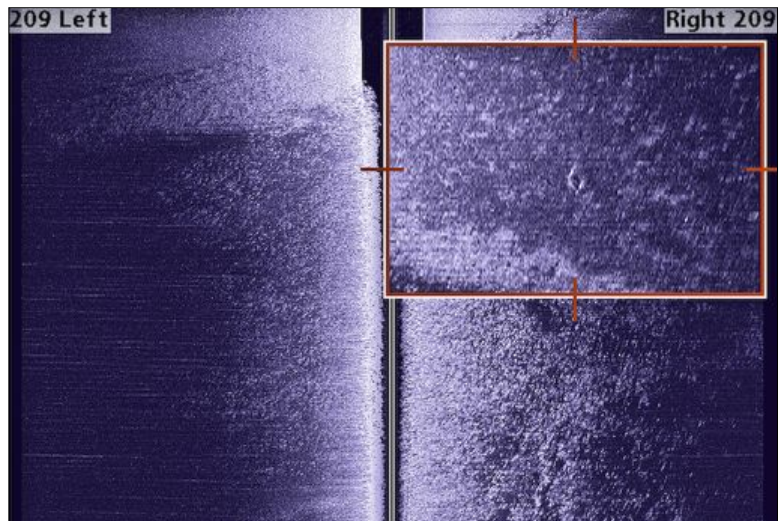
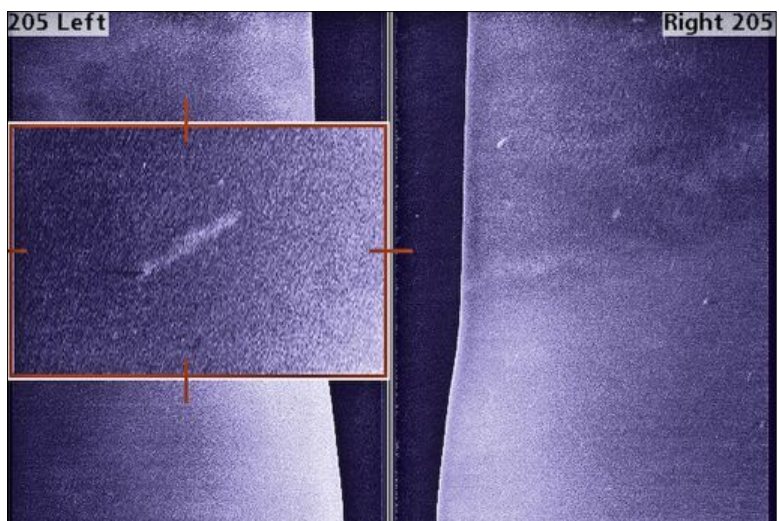


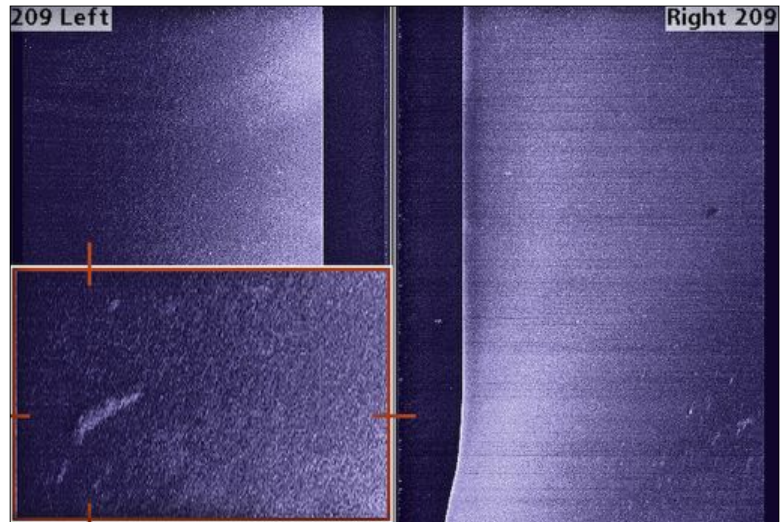
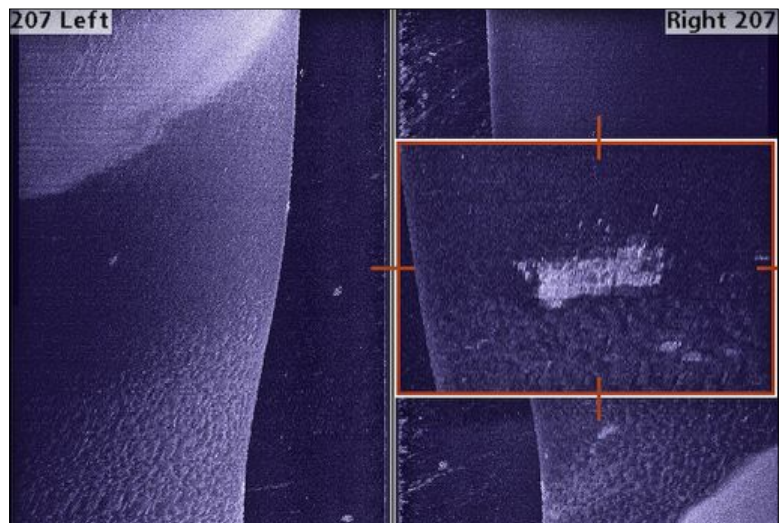
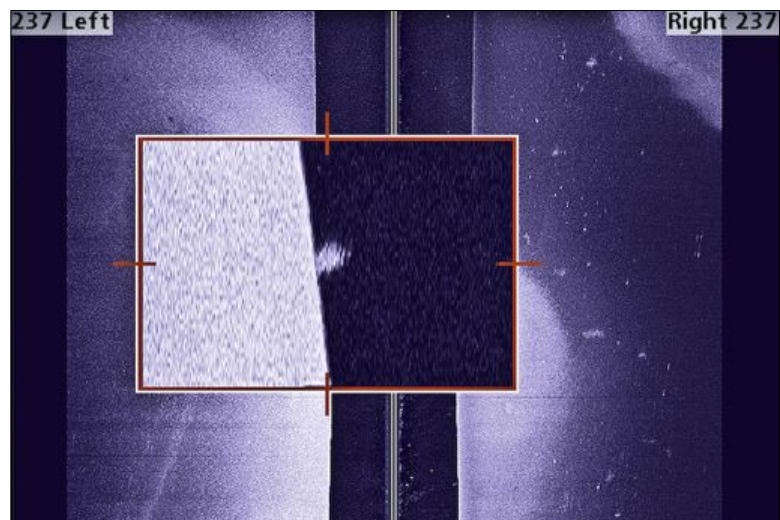
Anomaly 6**Recorded:** 11/21/2011**Identification:** Rectangular feature**Size:** Approximately 46 feet long**Location:** Crystal Bay**Analysis:** Unknown feature; note the mooring anchors, the small dark round objects, on the right side of the image**Anomaly 7****Recorded:** 11/21/2011**Identification:** Possible dive tower**Size:** Approximately 10 by 13 feet square**Location:** Crystal Bay**Analysis:** The shadow this object casts resembles a chair and may be a dive tower that was attached to a floating platform

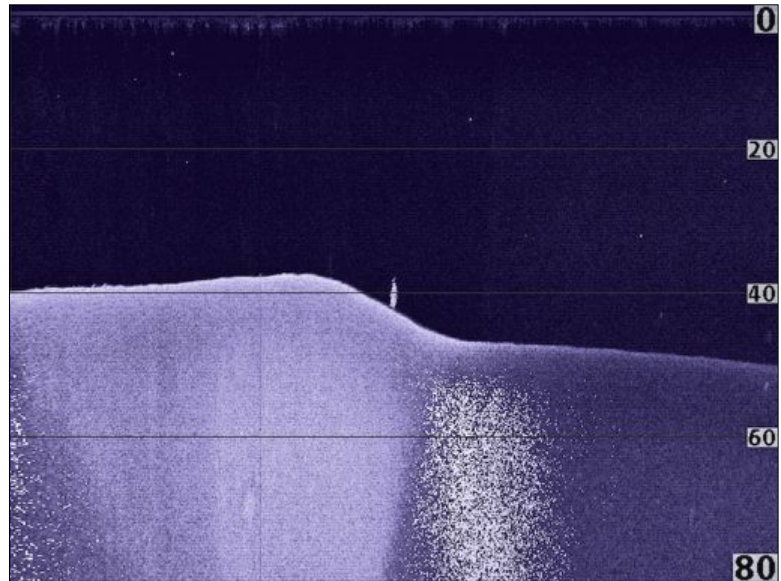
If Anomaly 7 is a dive tower it may have resembled this example anchored in Excelsior Bay in the early 1900s (Maritime Heritage Minnesota Collection).



Anomaly 8**Recorded:** 11/21/2011**Identification:** Boat-shaped feature**Size:** Approximately 30 feet long**Location:** Crystal Bay**Analysis:** The look of this anomaly suggests a buried boat-shaped object**Anomaly 9****Recorded:** 11/21/2011**Identification:** Stick-like feature with a round base**Size:** Approximately 2 feet in diameter on the 'base'**Location:** Crystal Bay**Analysis:** This object might be a sunken navigation buoy or something similar**Anomaly 10****Recorded:** 11/21/2011**Identification:** Probable Wreck**Size:** Approximately 26 Feet Long**Location:** South of Smith Bay**Analysis:** This object resembles an overturned boat with the keel facing upward

Anomaly 11**Recorded:** 11/16/2011**Identification:** Rectangular feature**Size:** Approximately 38 feet long**Location:** Browns Bay**Analysis:** Unknown**Anomaly 12****Recorded:** 11/16/2011**Identification:** Probable Wreck**Size:** Approximately 13 feet long**Location:** Browns Bay**Analysis:** This object resembles a small open boat**Anomaly 13****Recorded:** 11/16/2011**Identification:** Boat-shaped feature**Size:** Approximately 36 feet long**Location:** Browns Bay**Analysis:** This feature resembles a boat with a raised section at the end that casts a shadow

Anomaly 14**Recorded:** 11/16/2011**Identification:** Boat-shaped feature**Size:** Approximately 20 feet long**Location:** Browns Bay**Analysis:** This feature resembles a small boat on its side**Anomaly 15****Recorded:** 11/16/2011**Identification:** Probable Wreck**Size:** Approximately 26 Feet Long**Location:** Browns Bay**Analysis:** If this object is a wreck – possibly a barge – it is substantial, with a deep draft and raised features off the deck, lying on a small slope**Anomaly 16****Recorded:** 11/16/2011**Identification:** Square feature**Size:** Unknown**Location:** Browns Bay**Analysis:** This feature stands up off the bottom of the lake; see the down image below

Anomaly 16**Anomaly 17**

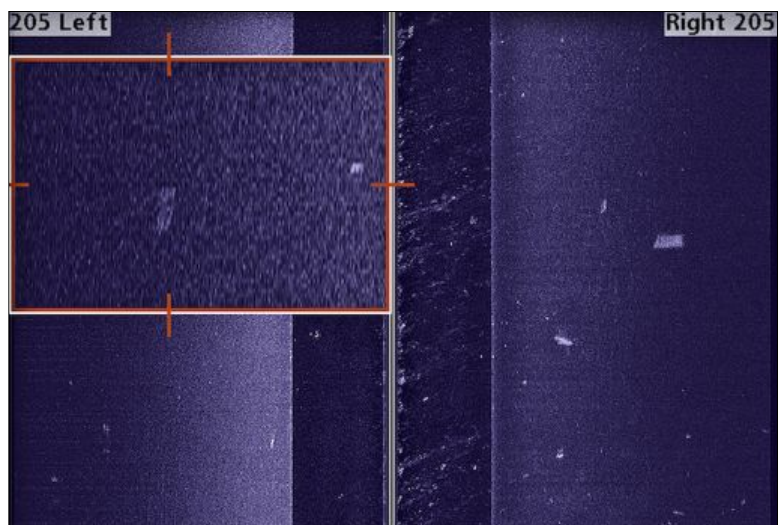
Recorded: 11/16/2011

Identification: Probable Wreck

Size: Approximately 3 by 7 feet

Location: Browns Bay

Analysis: MHM suggests this anomaly is a small vessel that resembles a john boat

**Anomaly 18**

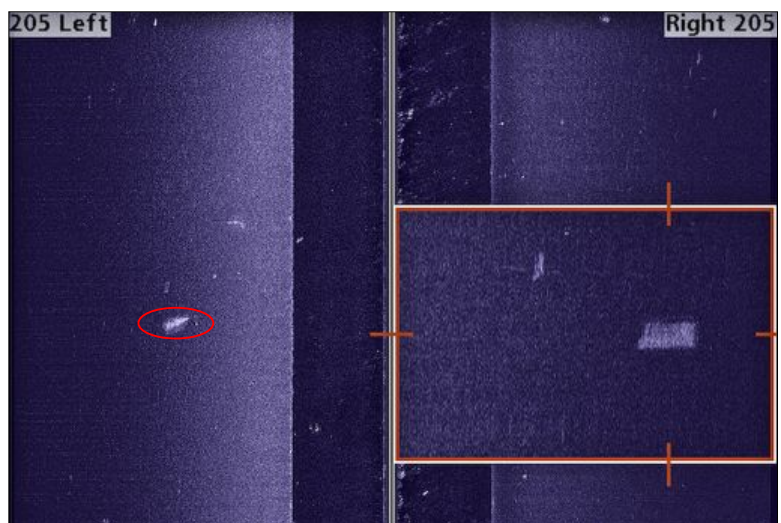
Recorded: 11/16/2011

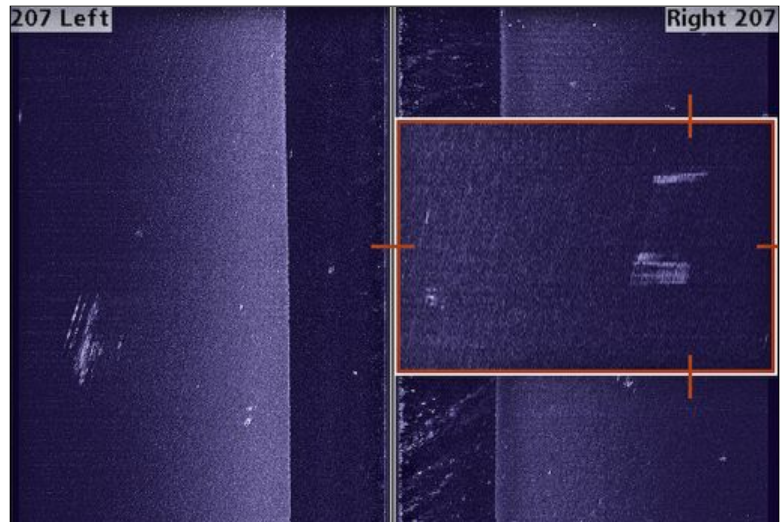
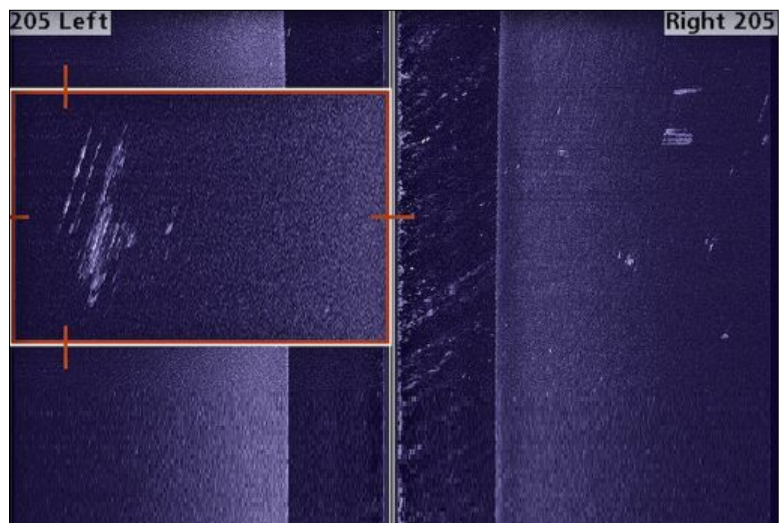
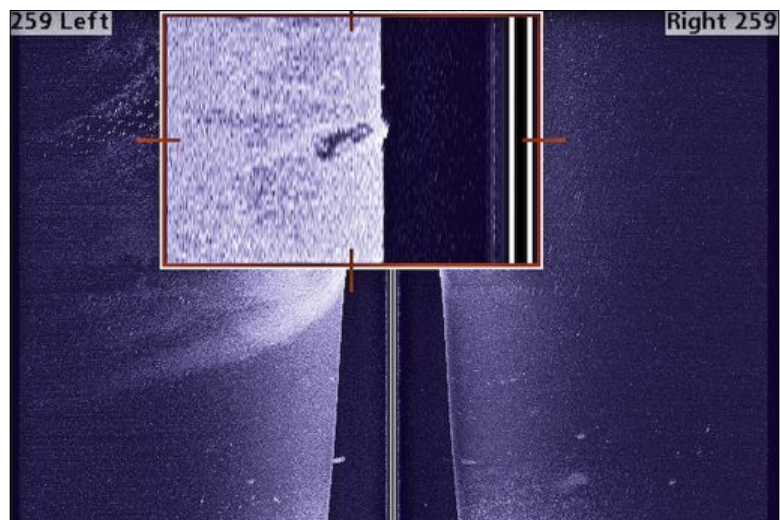
Identification: Rectangular feature

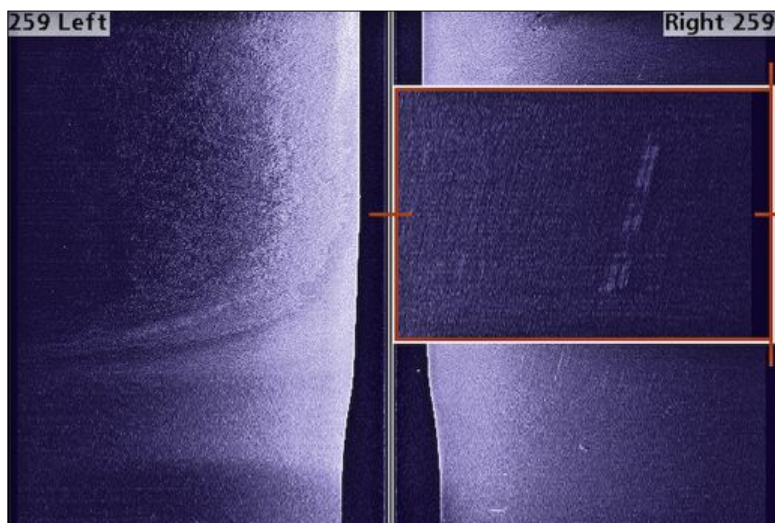
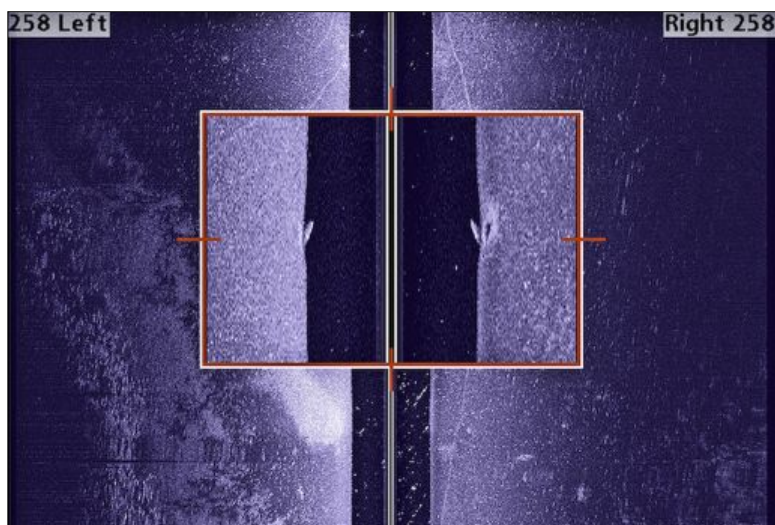
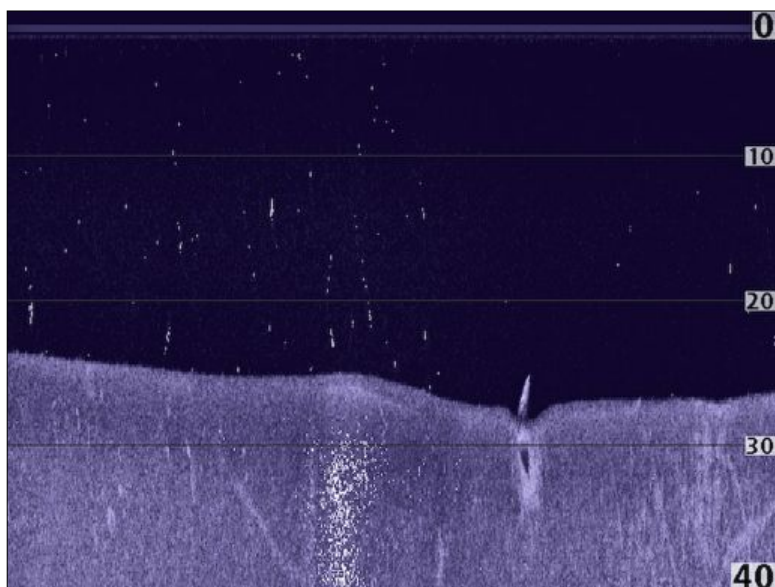
Size: Approximately 8 by 14 feet

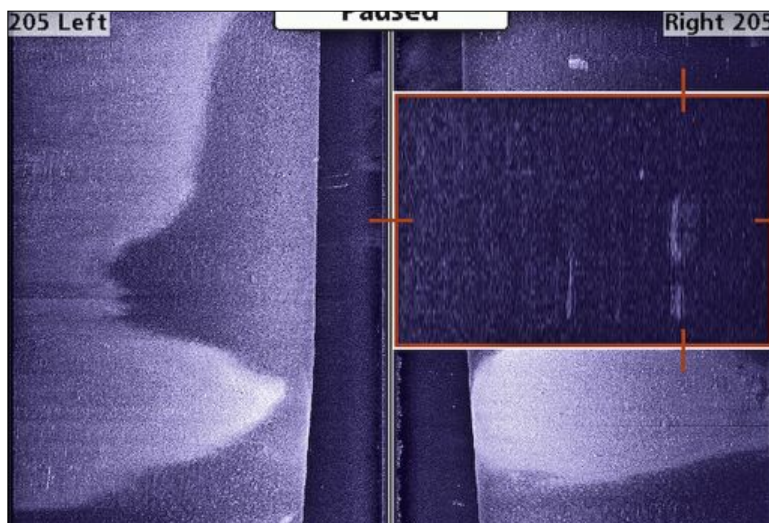
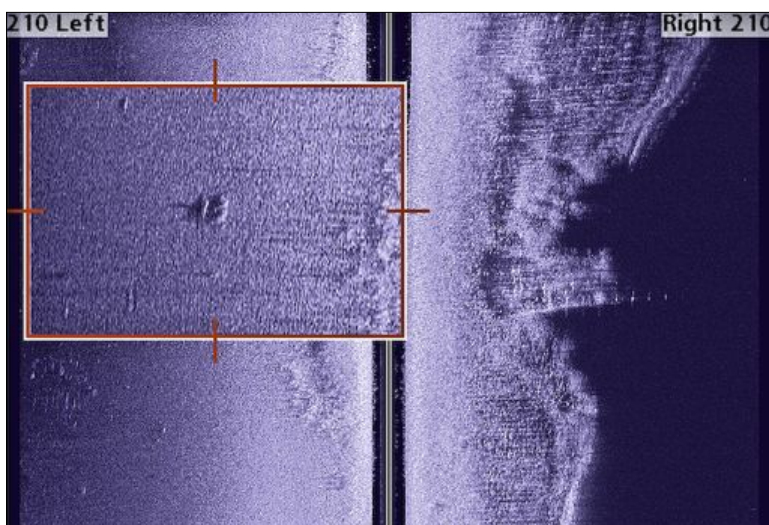
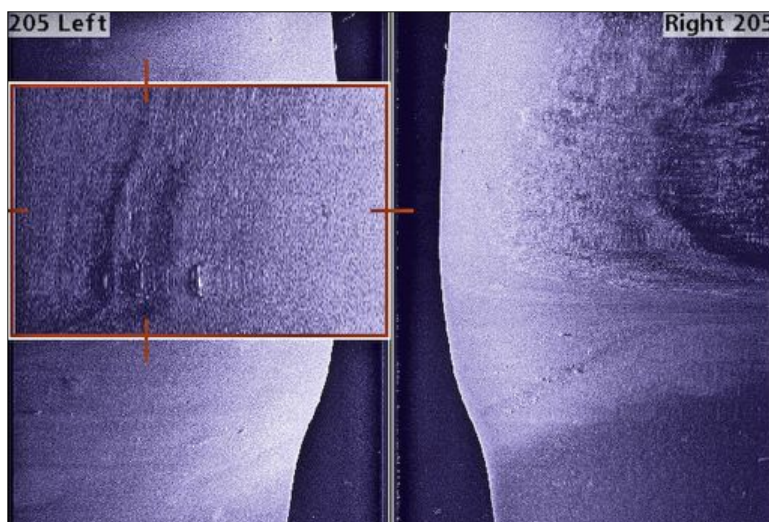
Location: Browns Bay

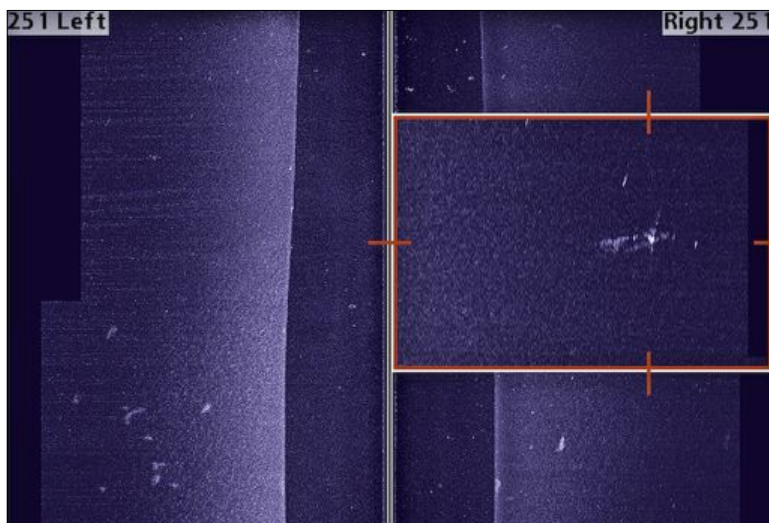
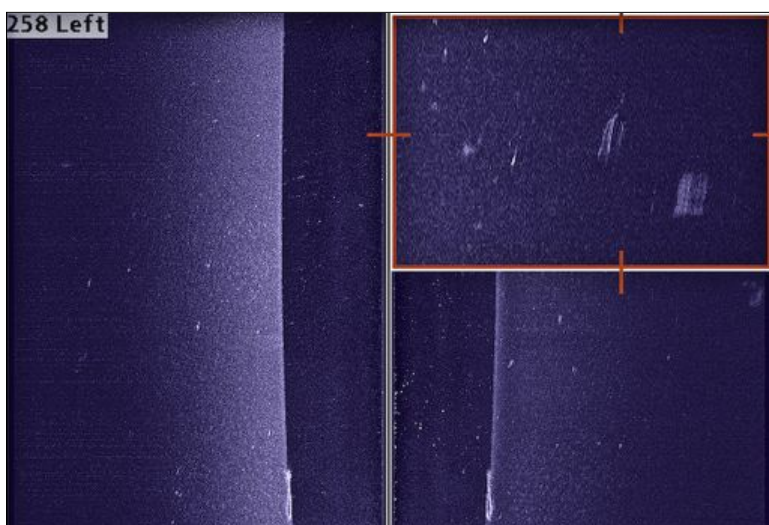
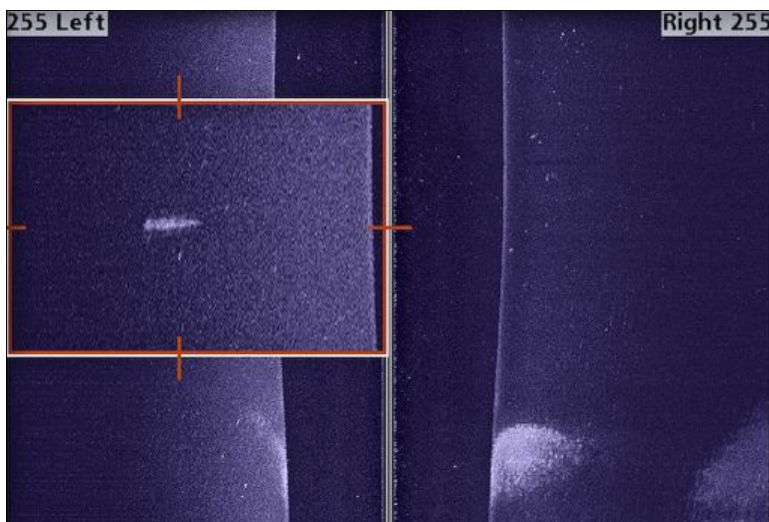
Analysis: Unknown; note the boat shaped feature circled to the left – MHM suspects it may be a geological feature but its shape is suggestive and it will be checked out with Anomaly 17 nearby

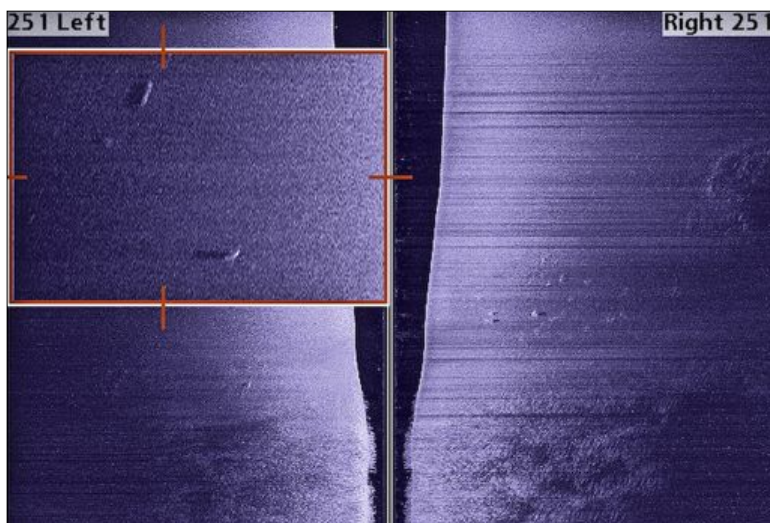
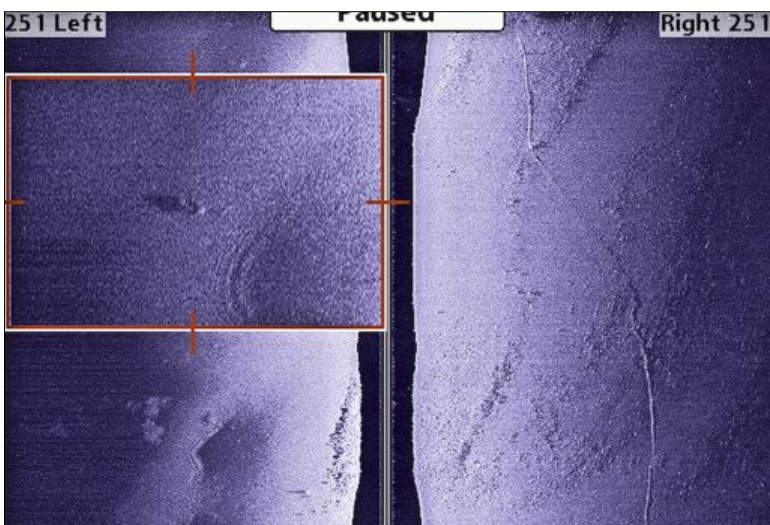
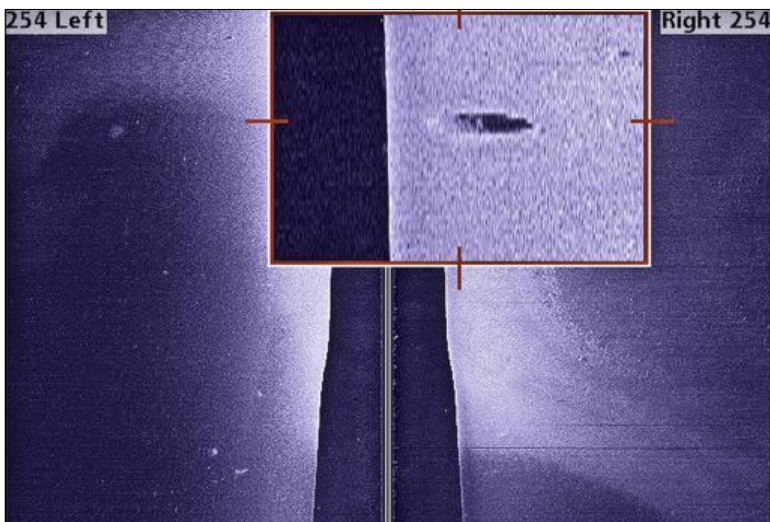


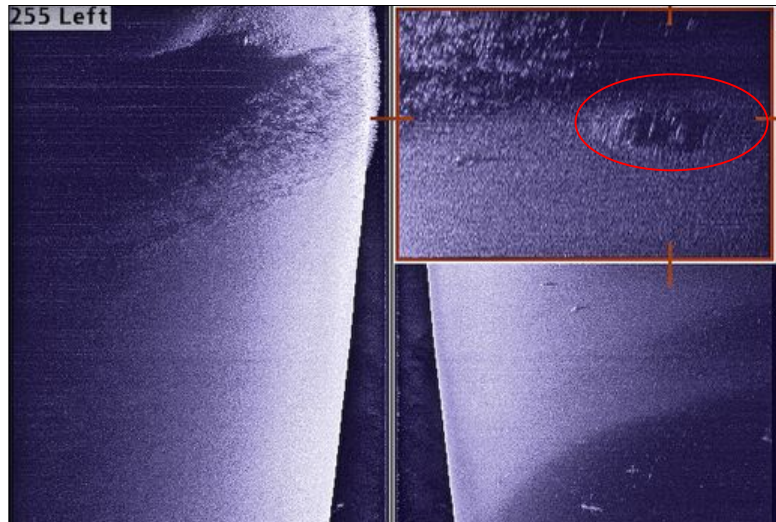
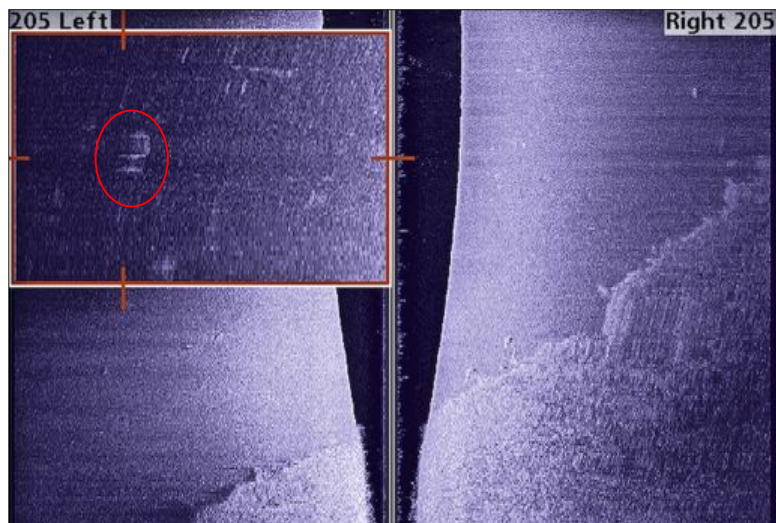
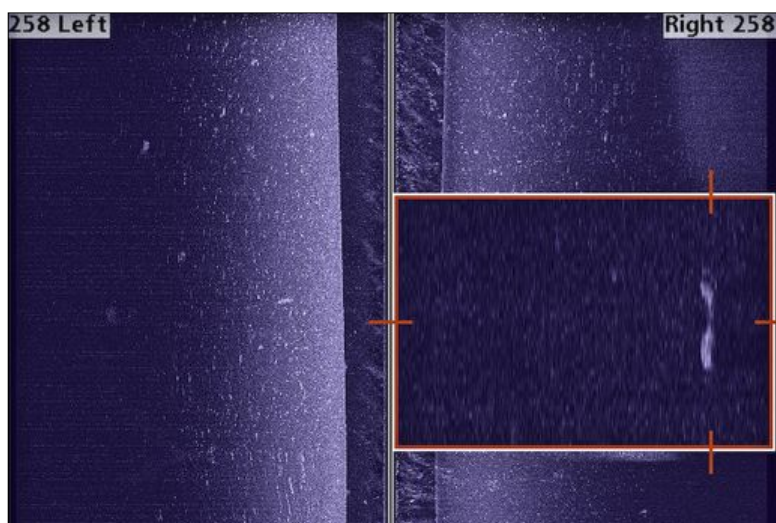
Anomaly 19**Recorded:** 11/16/2011**Identification:** Partially buried rectangular feature**Size:** Approximately 23 feet long**Location:** Browns Bay**Analysis:** This feature resembles a partially buried barge**Anomaly 20****Recorded:** 11/16/2011**Identification:** Partially buried feature**Size:** Approximately 40 feet long**Location:** Browns Bay**Analysis:** Sometimes buried wrecks or human-made objects appear like this anomaly, so it deserves attention**Anomaly 21****Recorded:** 11/17/2011**Identification:** Possible Wreck**Size:** Approximately 10 feet long**Location:** Wayzata Bay**Analysis:** This object appears to be a small boat

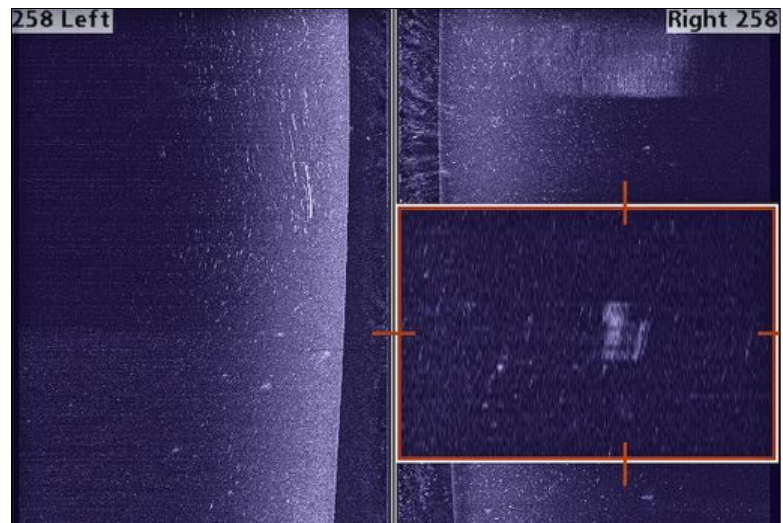
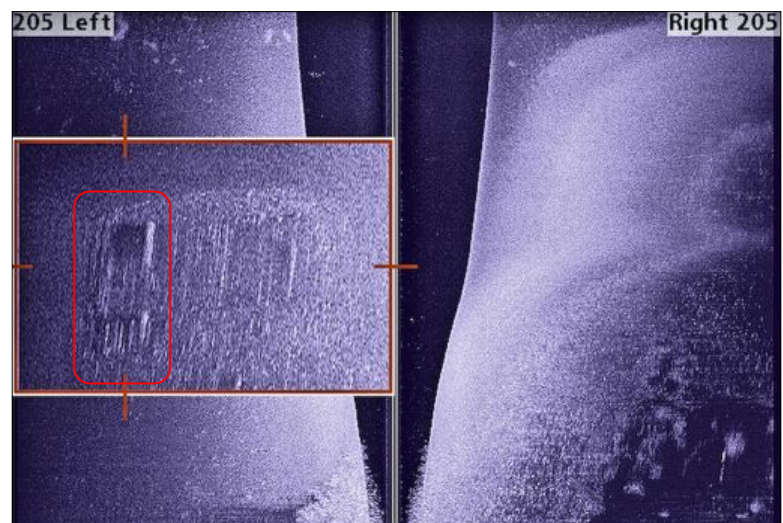
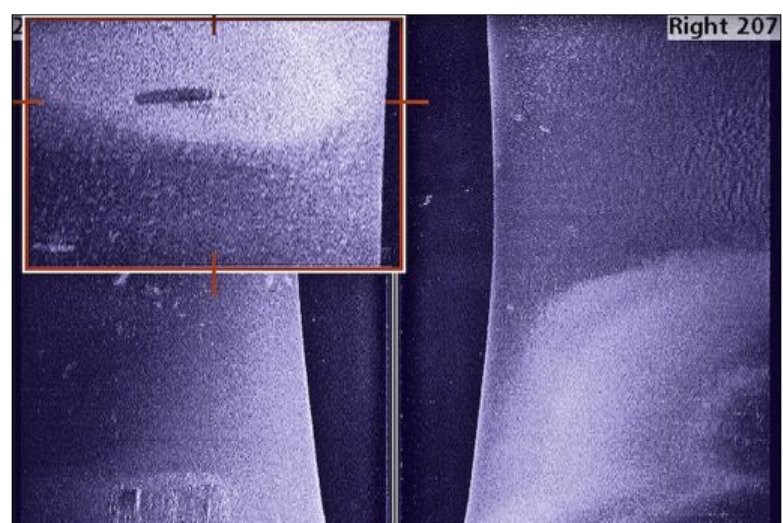
Anomaly 22**Recorded:** 11/17/2011**Identification:** Possible Dugout Canoe**Size:** Approximately 3.5 by 26 feet**Location:** Wayzata Bay**Analysis:** Because of the thinness of this object and it seemingly hollow nature, MHM suggests this anomaly maybe a long dugout canoe or the remains of a piling**Anomaly 23****Recorded:** 11/16/2011**Identification:** Unknown feature**Size:** Unknown**Location:** Grays Bay**Analysis:** The survey boat passed directly over this anomaly but the down image indicates it stands up off the bottom**Anomaly 23**

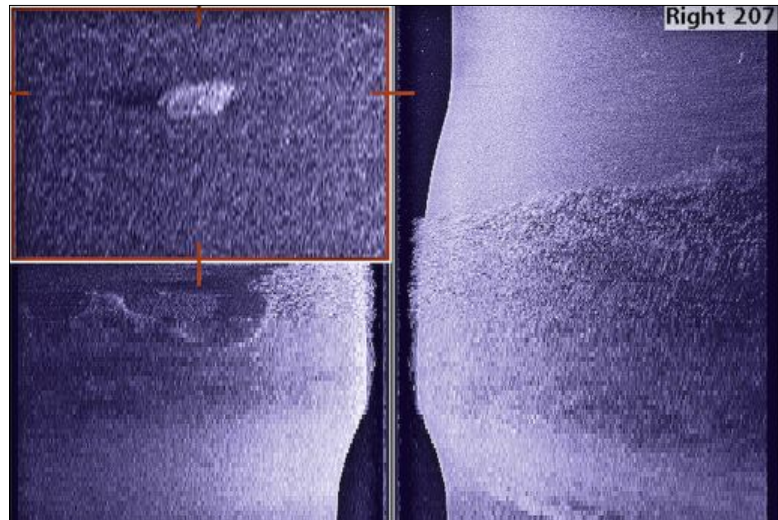
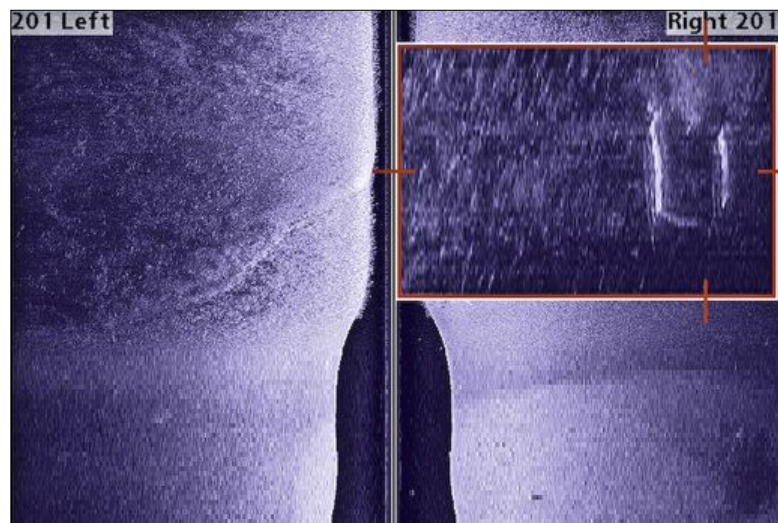
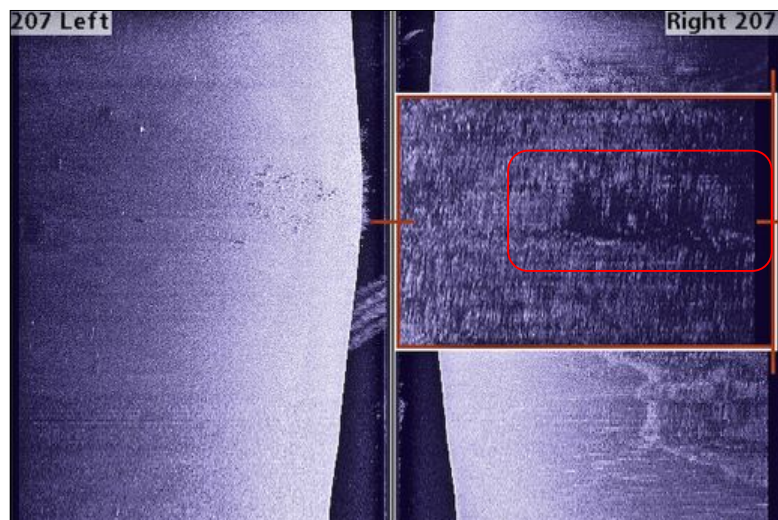
Anomaly 24**Recorded:** 9/23/2011**Identification:** Possible Wreck**Size:** Approximately 9 feet long**Location:** Robinson Bay**Analysis:** This anomaly could be an overturned boat**Anomaly 25****Recorded:** 9/23/2011**Identification:** Rectangular feature**Size:** Approximately 9 feet long**Location:** Robinson Bay**Analysis:** This anomaly may be small boat; the acoustical shadow suggests it has a small mast still standing**Anomaly 26****Recorded:** 9/23/2011**Identification:** Possible Wreck**Size:** Approximately 15 by 24 feet**Location:** Robinson Bay**Analysis:** The stern sidewheeler *Rush* reportedly was abandoned in Robinson Bay; this partially buried object may be the stern section of the *Rush* with the stern sidewheels poking out of the sand

Anomaly 27**Recorded:** 11/16/2011**Identification:** Probable Wreck**Size:** Approximately 20 Feet Long**Location:** South of Browns Bay**Analysis:** This object maybe a wreck, possibly a small sailboat**Possibility:** Brackett Sloop (poss. *Tiddledeywinks*), *White Swan***Anomaly 28****Recorded:** 11/16/2011**Identification:** Probable Wreck**Size:** Approximately 20 Feet Long**Location:** North of Big Island**Analysis:** This object resembles a small overturned boat with the keel facing upward; the square feature nearby may be an artifact as well**Anomaly 29****Recorded:** 11/17/2011**Identification:** Possible Wreck**Size:** Approximately 18 feet long**Location:** Northeast of Big Island**Analysis:** This object resembles a small overturned boat with the keel facing upward

Anomaly 30**Recorded:** 11/17/2011**Identification:** Rectangular features**Size:** Unknown**Location:** Northeast of Big Island**Analysis:** The lower feature is protruding about 5 feet off the bottom, casting an acoustical shadow**Anomaly 31****Recorded:** 11/17/2011**Identification:** Possible Wreck**Size:** Approximately 8 feet long**Location:** Off Gibson Point**Analysis:** This object may be a small boat, or a motor vehicle or a snowmobile that went through ice; it appears that there was an attempt to raise this object with a cable suggested by the contours shaped like a '?' following it**Anomaly 32****Recorded:** 11/21/2011**Identification:** Square feature**Size:** Approximately 10 feet long**Location:** North of Big Island**Analysis:** This feature casts a long shadow suggesting it rises a bit off the lake bottom

Anomaly 33**Recorded:** 11/17/2011**Identification:** Probable Wreck**Size:** Approximately 21 feet long**Location:** Northeast of Big Island**Analysis:** The shape of this anomaly is highly suggestive of a wreck**Anomaly 34****Recorded:** 9/23/2011**Identification:** Square feature**Size:** Approximately 7 feet long**Location:** Off Sunset Point**Analysis:** This anomaly could be a fish house**Anomaly 35****Recorded:** 11/21/2011**Identification:** Feature**Size:** Approximately 42 feet long**Location:** Lafayette Bay**Analysis:** Unknown

Anomaly 36**Recorded:** 11/21/2011**Identification:** Square feature**Size:** Approximately 10 by 10 feet long**Location:** Lafayette Bay**Analysis:** Unknown**Anomaly 37****Recorded:** 9/23/2011**Identification:** Rectangular feature**Size:** Approximately 8 by 11**Location:** East of Big Island**Analysis:** This feature appears to be a partially buried rectangular object, possibly a barge or dredge**Anomaly 38****Recorded:** 9/23/2011**Identification:** Small feature**Size:** Unknown**Location:** East of Big Island**Analysis:** A small feature sitting off the bottom high enough to cast a significant shadow

Anomaly 39**Recorded:** 9/23/2011**Identification:** Possible Wreck**Size:** Approximately 13 feet long**Location:** North of Swift Point**Analysis:** This anomaly may be a small boat; seats seem to be visible in the sonar image**Anomaly 40****Recorded:** 9/23/2011**Identification:** Rectangular feature**Size:** Approximately 11 by 31 feet**Location:** North of Swift Point**Analysis:** This anomaly may be a small barge**Anomaly 41****Recorded:** 9/23/2011**Identification:** Rectangular feature**Size:** Approximately 30 feet long**Location:** West of Lighthouse Island**Analysis:** Unknown

Anomaly 42

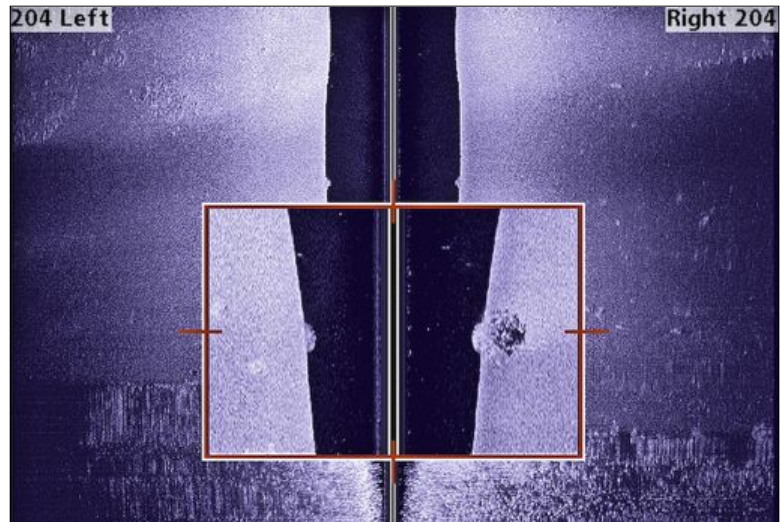
Recorded: 9/23/2011

Identification: Round feature

Size: Unknown

Location: Off Point Charming

Analysis: Unknown

**Anomaly 43**

Recorded: 9/23/2011

Identification: Possible Wreck

Size: Approximately 12 feet long

Location: Off Point Charming

Analysis: This anomaly may be a small boat

**Anomaly 44**

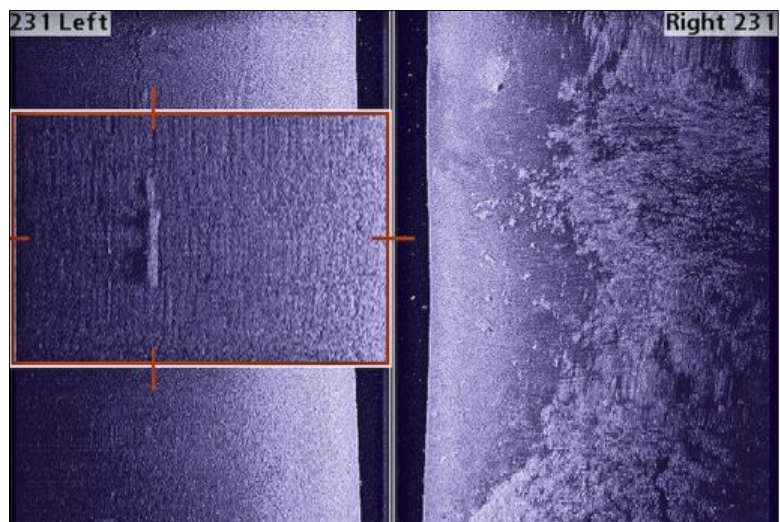
Recorded: 9/23/2011

Identification: Feature

Size: Approximately 20 feet long

Location: Carson Bay

Analysis: Unknown, but it casts a substantial acoustical shadow



Anomaly 45

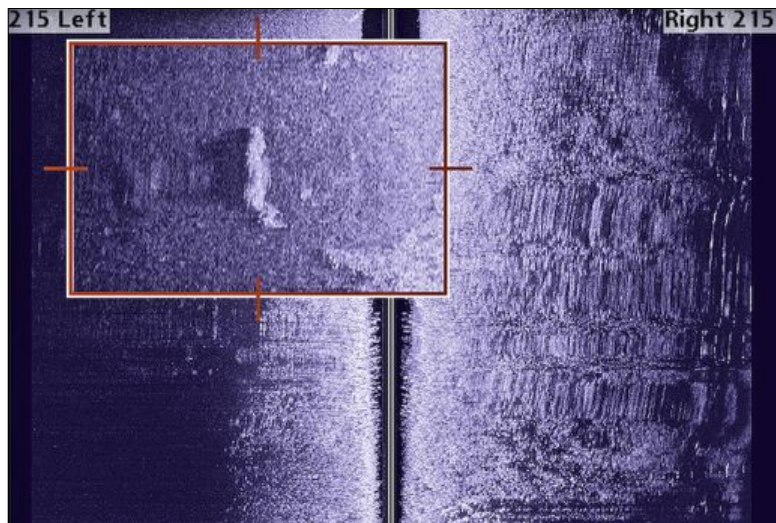
Recorded: 9/23/2011

Identification: Boat-shaped feature

Size: Approximately 6 by 35 feet long

Location: Carson Bay

Analysis: This anomaly may be a boat

**Anomaly 46**

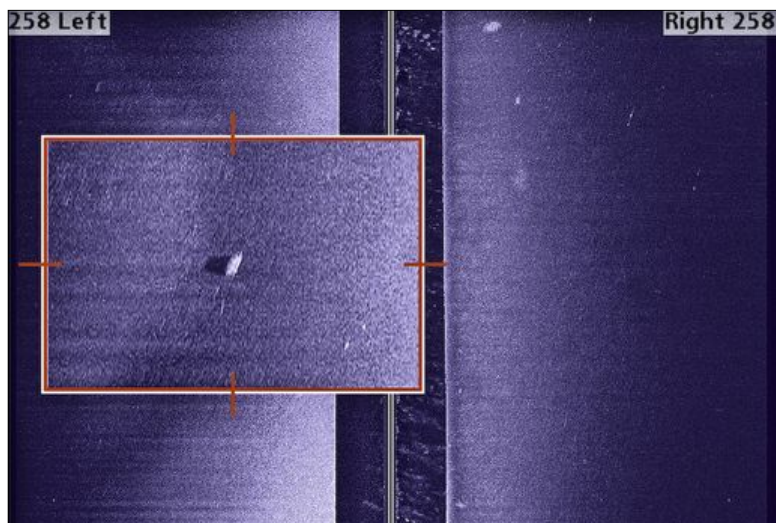
Recorded: 11/22/2011

Identification: Square feature

Size: Approximately 13 feet long

Location: Off Point Comfort

Analysis: Unknown, but it may be debris from the dismantling of Big Island

**Anomaly 47**

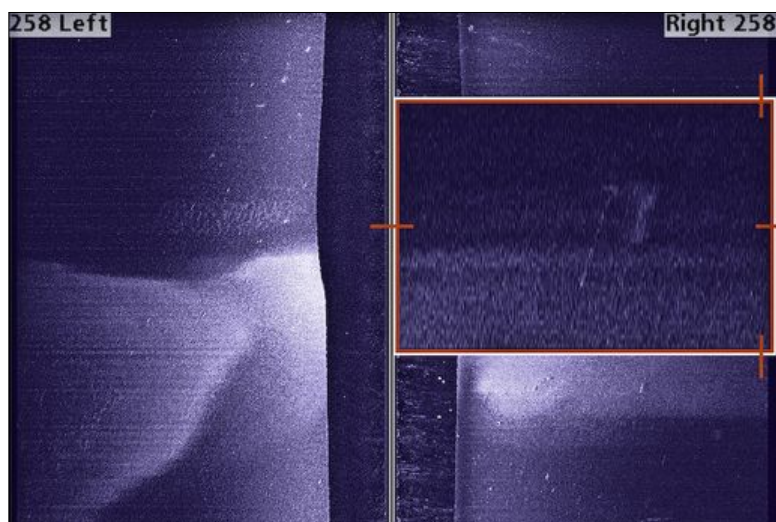
Recorded: 11/22/2011

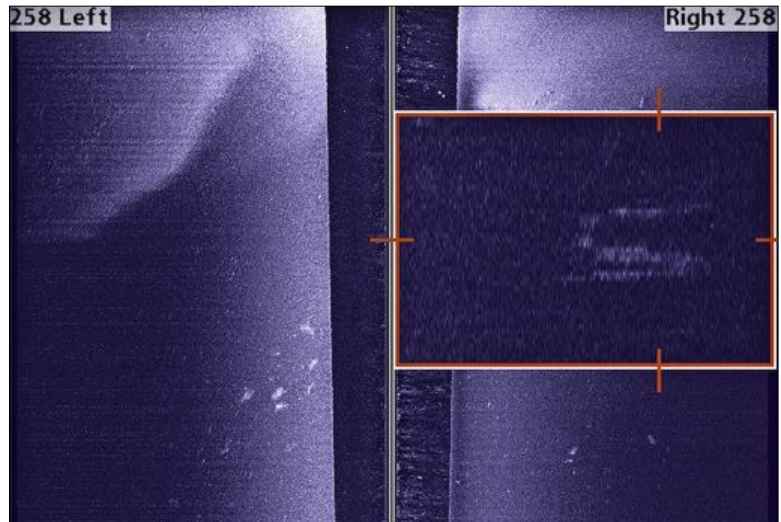
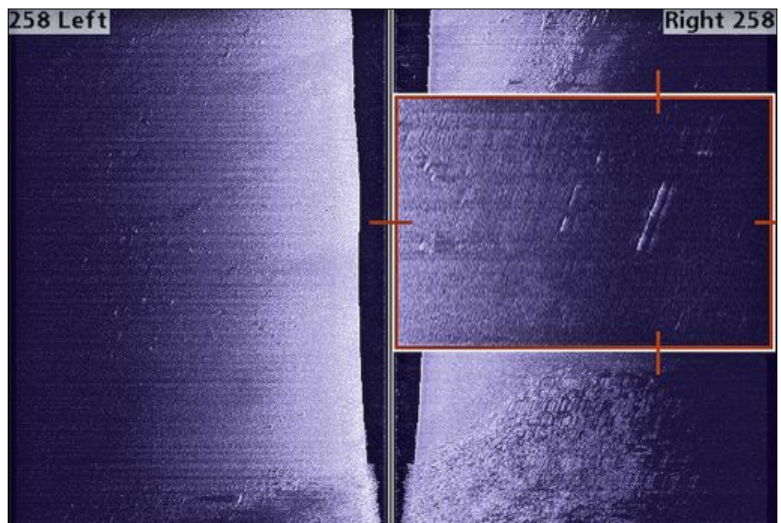
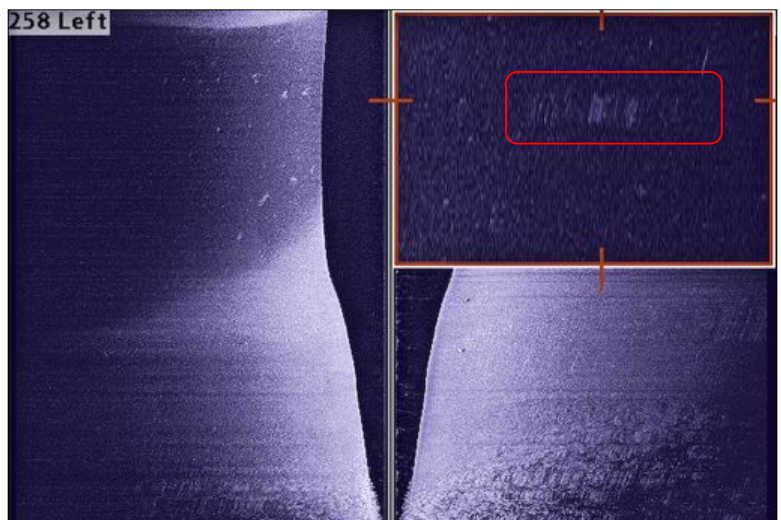
Identification: Rectangular feature

Size: Approximately 8 by 35 feet

Location: Off Ferguson Point

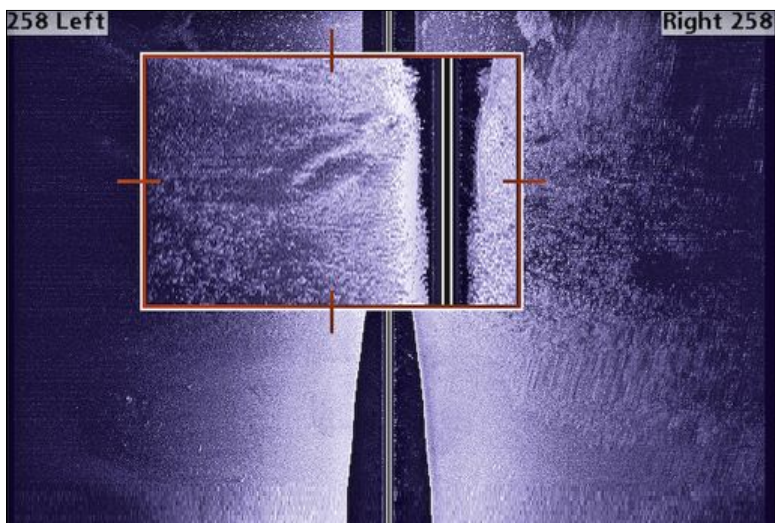
Analysis: Unknown, but this anomaly could be a partially buried barge



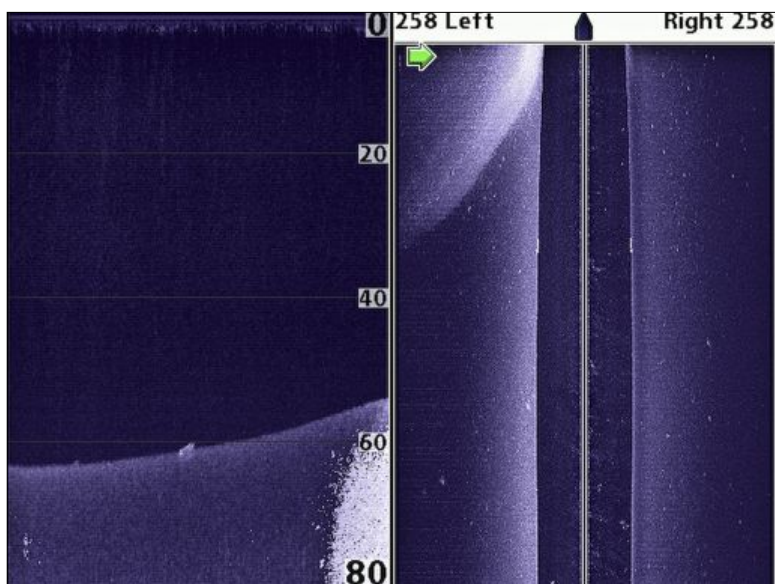
Anomaly 48**Recorded:** 11/22/2011**Identification:** Rectangular feature**Size:** Approximately 17 feet long**Location:** Off Ferguson Point**Analysis:** Unknown**Anomaly 49****Recorded:** 11/22/2011**Identification:** Partially buried feature**Size:** Approximately 7 feet long**Location:** West of Gale Island**Analysis:** Unknown**Anomaly 50****Recorded:** 11/22/2011**Identification:** Probable Wreck**Size:** Approximately 23 feet long**Location:** Off Greenwood**Analysis:** This rectangular anomaly may be a wreck, possibly a barge or the bottom of a hull

Anomaly 51**Recorded:** 11/22/2011**Identification:** Boat-shaped feature**Size:** Approximately 22 feet long**Location:** Off Greenwood

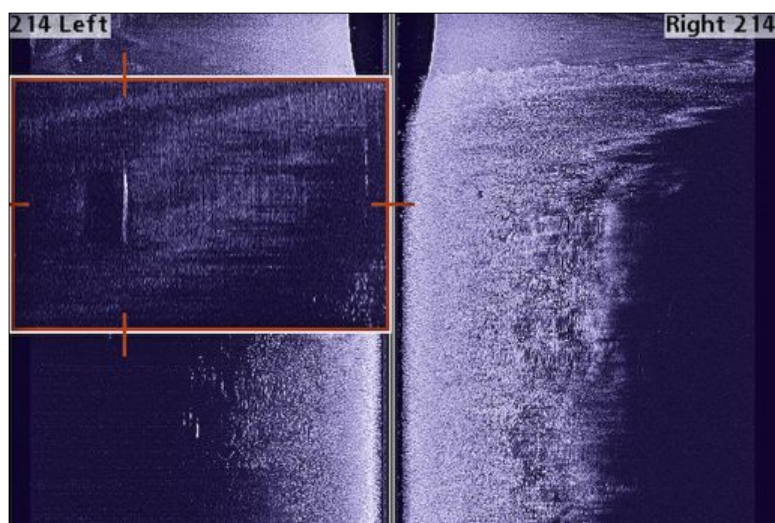
Analysis: This anomaly suggests a boat and it does cast a substantial shadow; however it is among weeds so some of the shadows may be vegetation

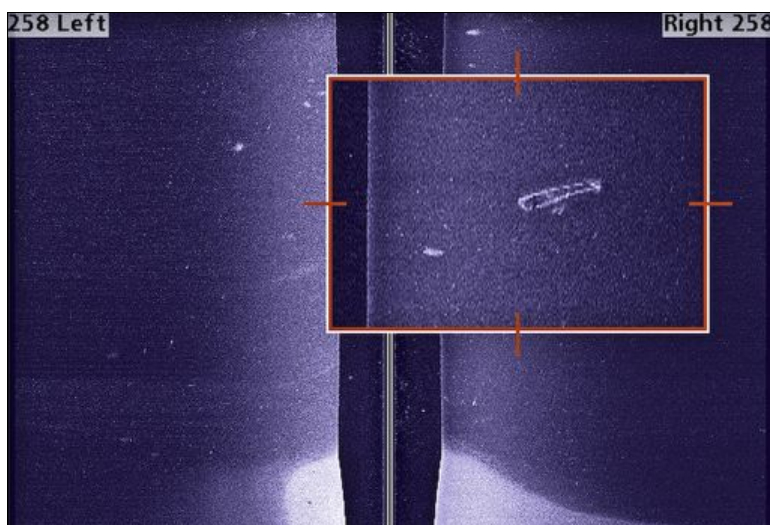
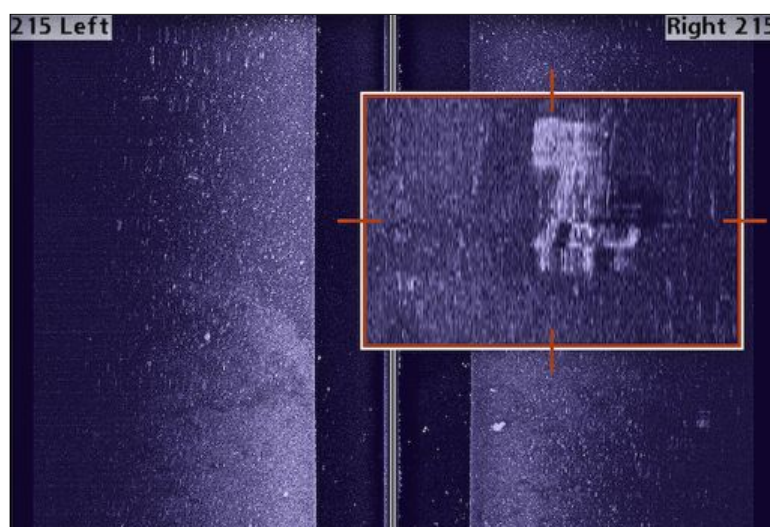
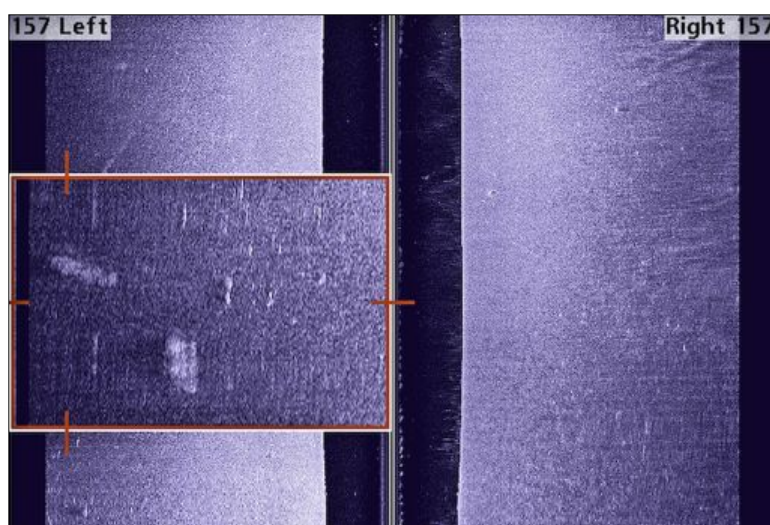
**Anomaly 52****Recorded:** 11/22/2011**Identification:** Rectangular feature**Size:** Unknown**Location:** West of Gale Island

Analysis: The survey boat passed directly over this anomaly but the down image suggests a rectangular object that rises a bit off the bottom of the lake

**Anomaly 53****Recorded:** 9/19/2011**Identification:** Rectangular feature**Size:** Approximately 19 feet long**Location:** Greenwood

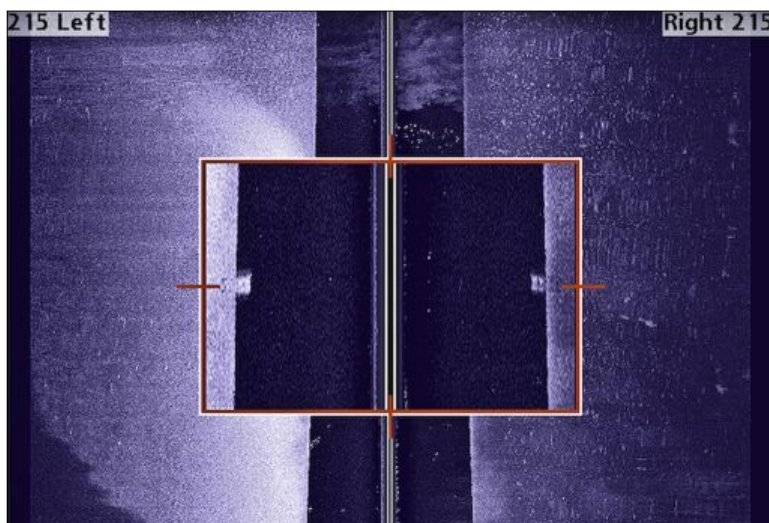
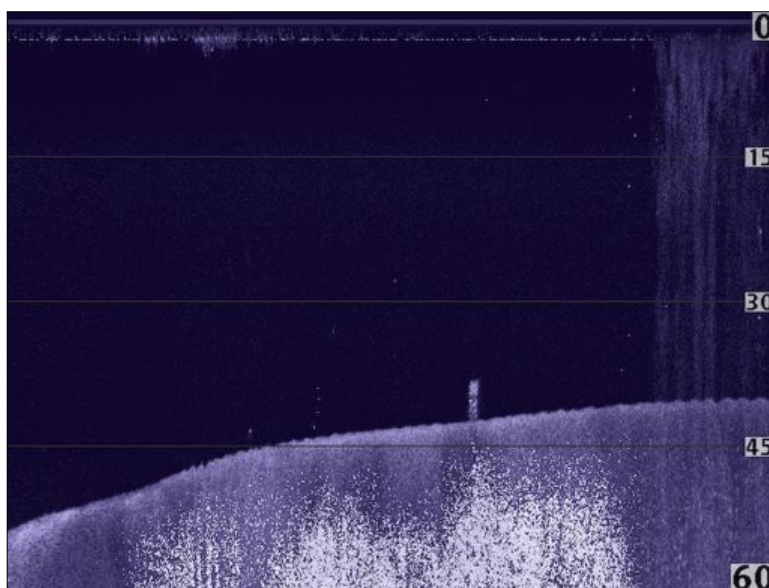
Analysis: A long rectangular anomaly that casts a sizeable acoustical shadow, indicating it rises off the bottom significantly



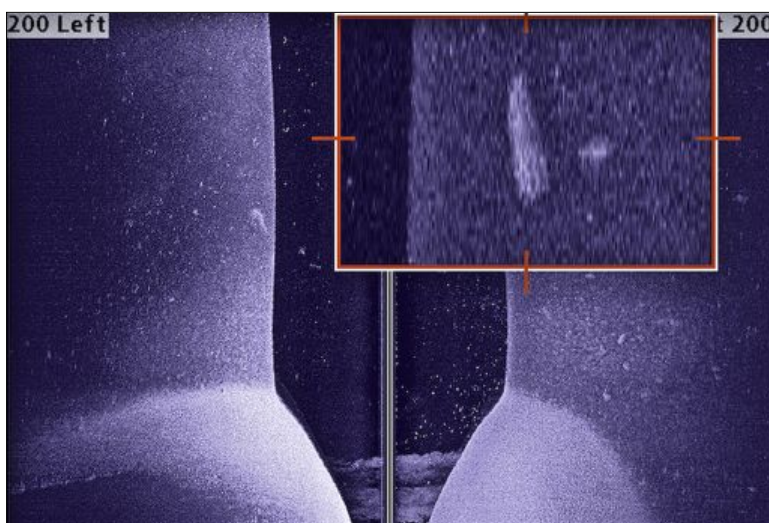
Anomaly 54**Recorded:** 11/21/2011**Identification:** Wreck**Size:** Approximately 5 by 26 feet**Location:** South of Mahpiyata Island**Analysis:** MHM is confident that this anomaly is a wreck; however, her age cannot be determined without diving on her so until that is completed, she cannot be designated as a site**Anomaly 55****Recorded:** 9/19/2011**Identification:** Rectangular feature**Size:** Approximately 12 by 23 feet**Location:** Northeast of Sunrise Point**Analysis:** Unknown**Anomaly 56****Recorded:** 9/19/2011**Identification:** Boat-shaped feature (above) and a rectangular feature (below)**Size:** Approximately 19 feet long (boat shape), 8 by 14 feet (rectangular shape)**Location:** Northeast of Sunrise Point**Analysis:** The top feature may be a small boat; the other is unknown

Anomaly 57**Recorded:** 9/19/2011**Identification:** Feature**Size:** Unknown**Location:** West of Greenwood

Analysis: The survey boat passed directly over this feature; the basic shape of this anomaly is rectangular and it rises significantly off the bottom in the down image

**Anomaly 57****Anomaly 58****Recorded:** 9/19/2011**Identification:** Boat-shaped feature**Size:** Approximately 4 by 16 feet**Location:** East of Sunrise Point

Analysis: This anomaly may be a small boat



Anomaly 59

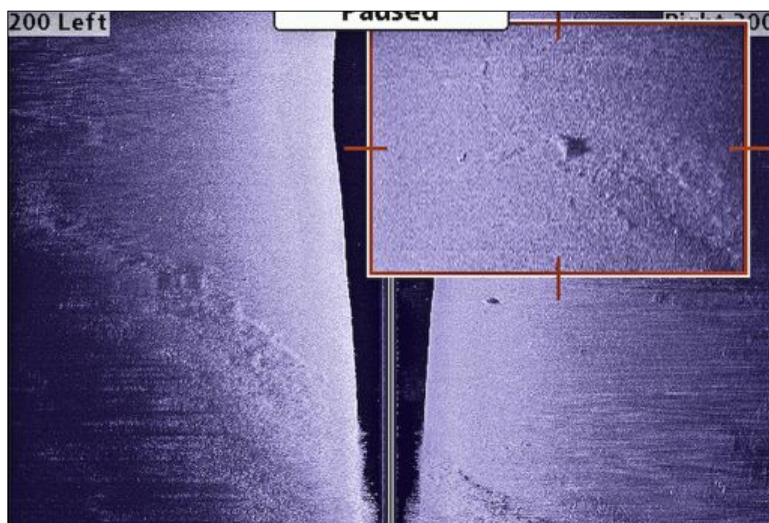
Recorded: 9/19/2011

Identification: Feature

Size: Approximately 3 by 8 feet

Location: West of Greenwood

Analysis: Unknown

**Anomaly 60**

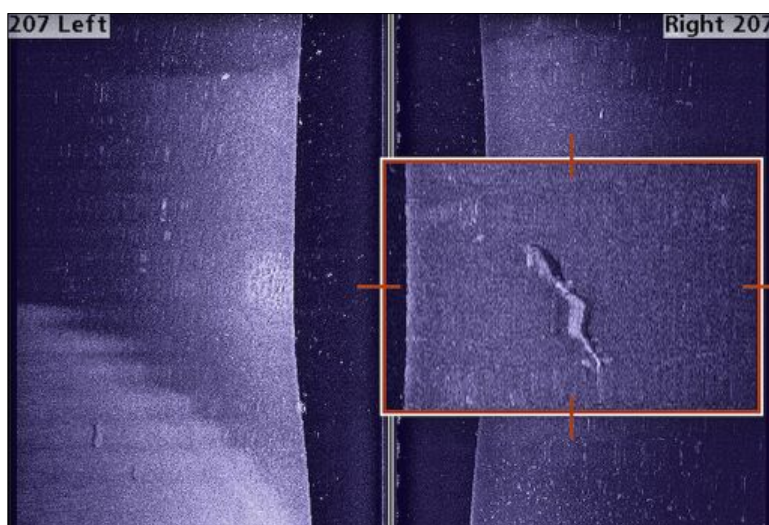
Recorded: 9/19/2011

Identification: Irregularly-shaped feature

Size: Approximately 47 feet

Location: Between Sunrise Point and Excelsior Commons

Analysis: Unknown

**Anomaly 61**

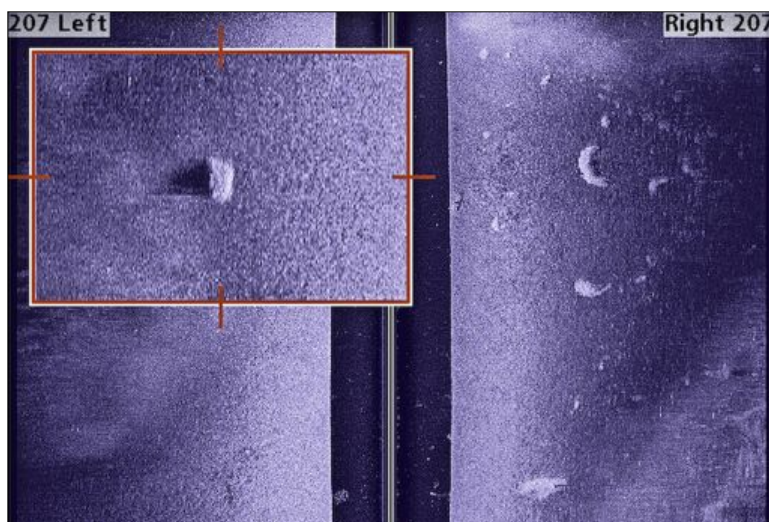
Recorded: 9/19/2011

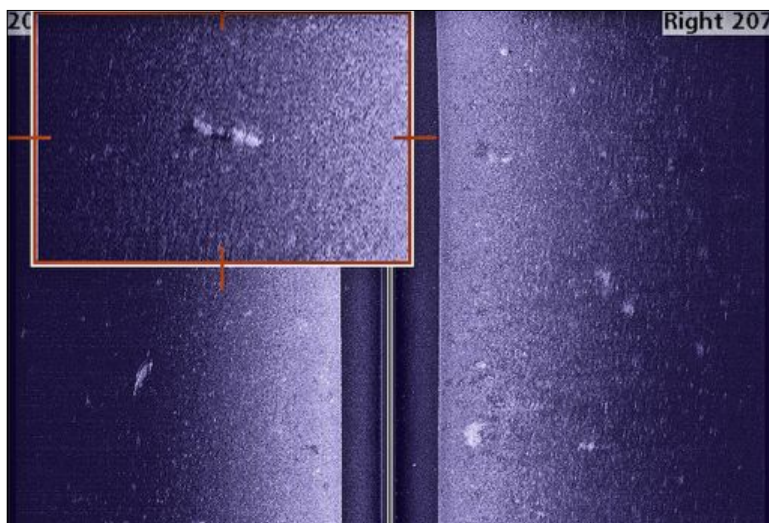
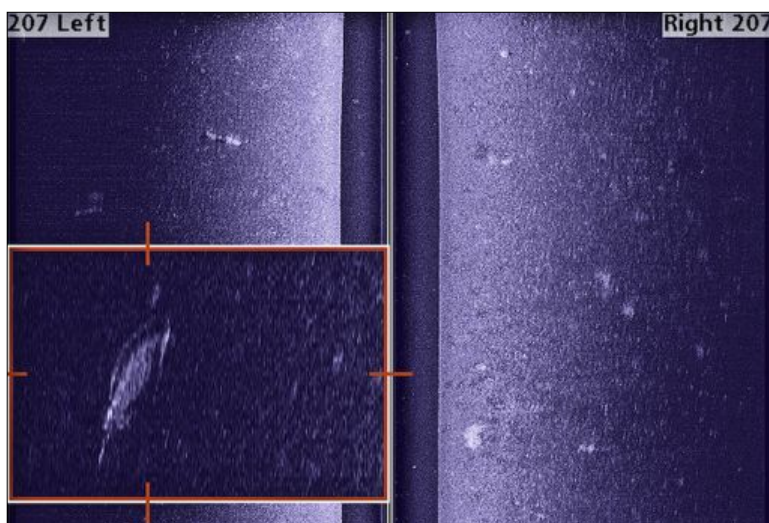
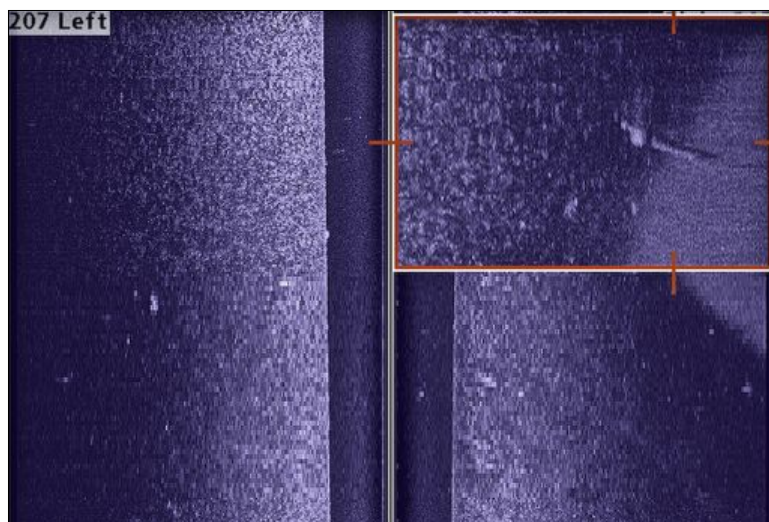
Identification: Rectangular feature

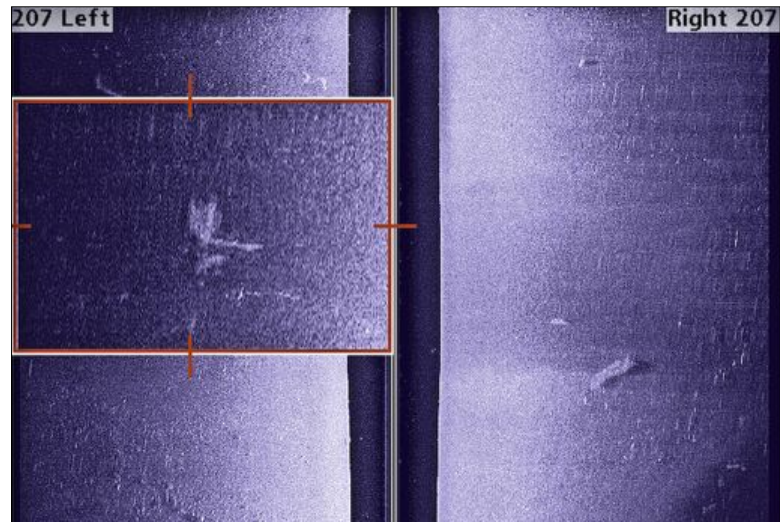
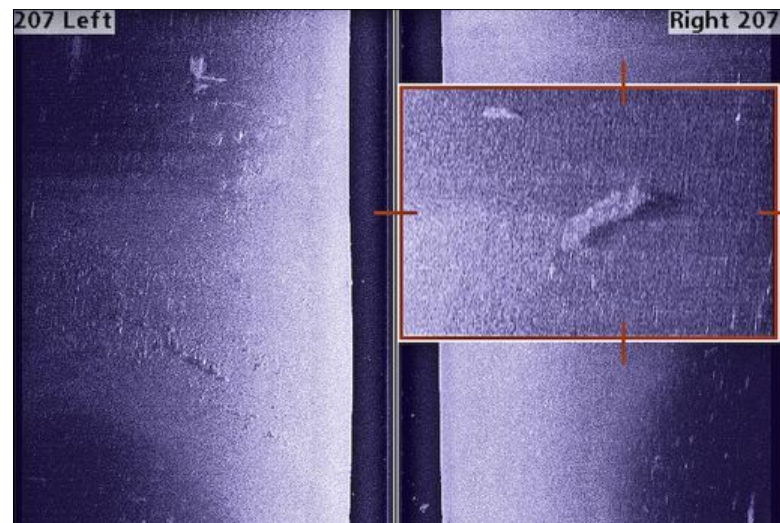
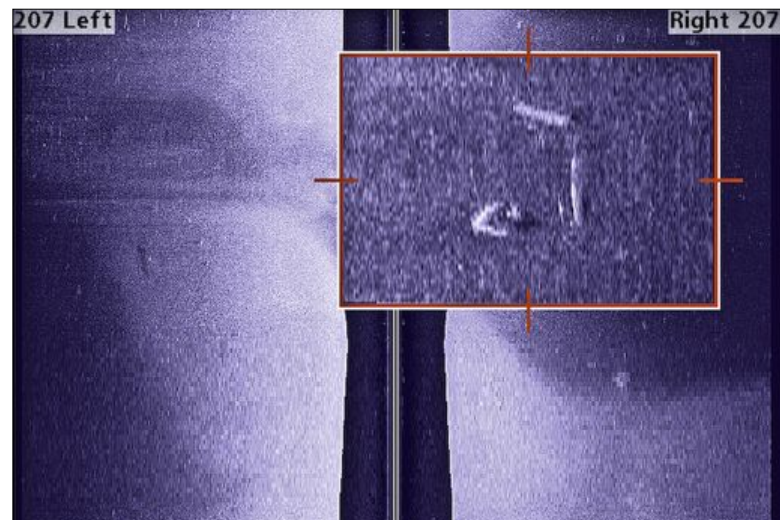
Size: Approximately 6 by 23 feet

Location: Off Excelsior Commons

Analysis: Unknown



Anomaly 62**Recorded:** 9/19/2011**Identification:** Feature**Size:** Approximately 20 feet long**Location:** Gideon Bay**Analysis:** Unknown**Anomaly 63****Recorded:** 9/19/2011**Identification:** Probable Wreck**Size:** Approximately 24 feet long**Location:** Gideon Bay**Analysis:** This object appears to be a boat, maybe with a railing still intact**Anomaly 64****Recorded:** 9/19/2011**Identification:** Pipe-like feature**Size:** Approximately 27 feet long**Location:** Gideon Bay**Analysis:** This object may be a metal pipe or old navigation piling

Anomaly 65**Recorded:** 9/19/2011**Identification:** Feature**Size:** Approximately 16 feet long**Location:** Gideon Bay**Analysis:** Unknown**Anomaly 66****Recorded:** 9/19/2011**Identification:** Boat-shaped feature**Size:** Approximately 17 feet long**Location:** Gideon Bay**Analysis:** This object resembles a boat on its side**Anomaly 67****Recorded:** 9/19/2011**Identification:** Partially buried feature**Size:** Approximately 15 by 26 feet**Location:** Gideon Bay**Analysis:** This anomaly may be a partially buried wreck known as 'Jerry's Wreck' but without further research its status cannot be determined

Anomaly 68

Recorded: 9/23/2011

Identification: Rectangular feature

Size: Approximately 41 by 49 feet

Location: St. Albans Bay

Analysis: Unknown and hard to determine due to vegetation

**Anomaly 69**

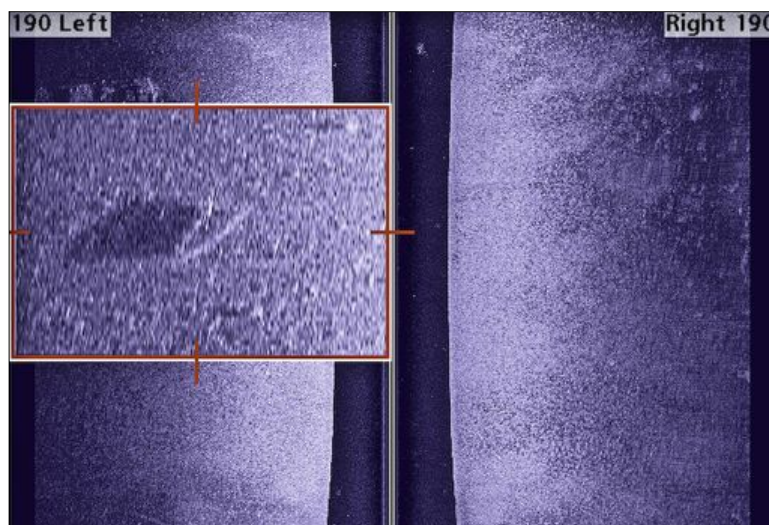
Recorded: 9/23/2011

Identification: V-shaped feature

Size: Unknown

Location: St. Albans Bay

Analysis: Unknown, but it casts a substantial acoustical shadow

**Anomaly 70**

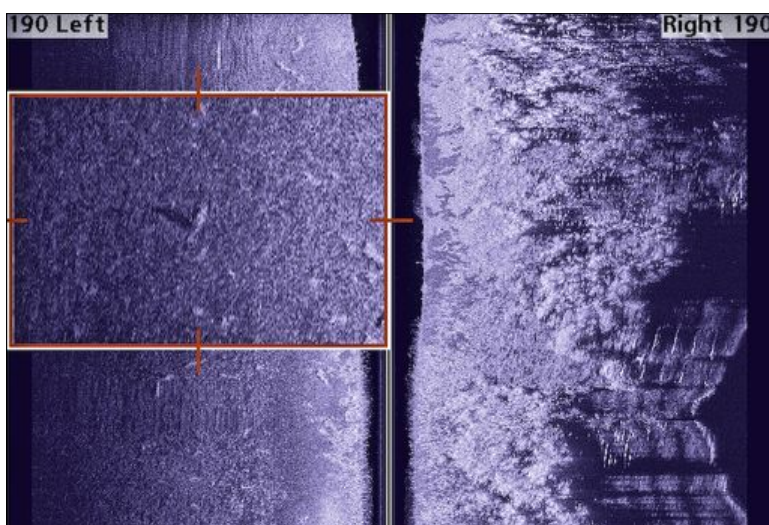
Recorded: 9/23/2011

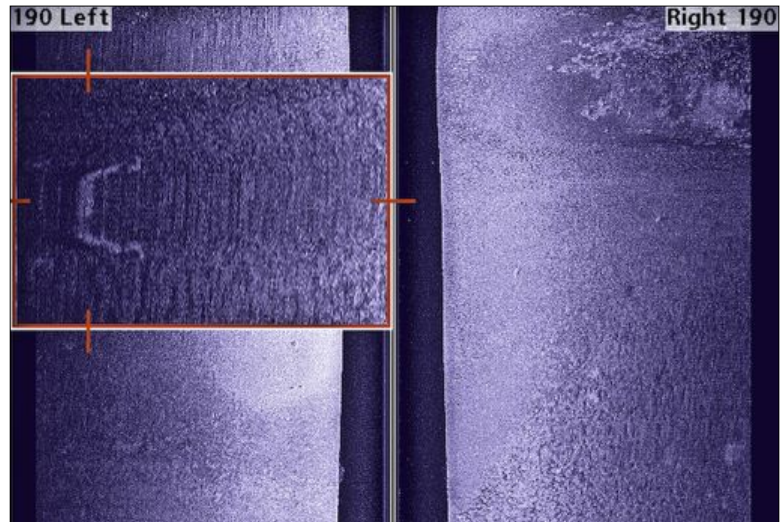
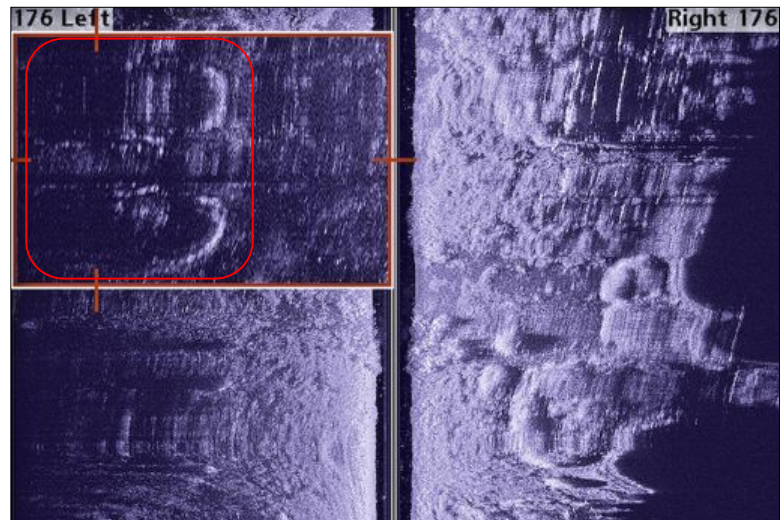
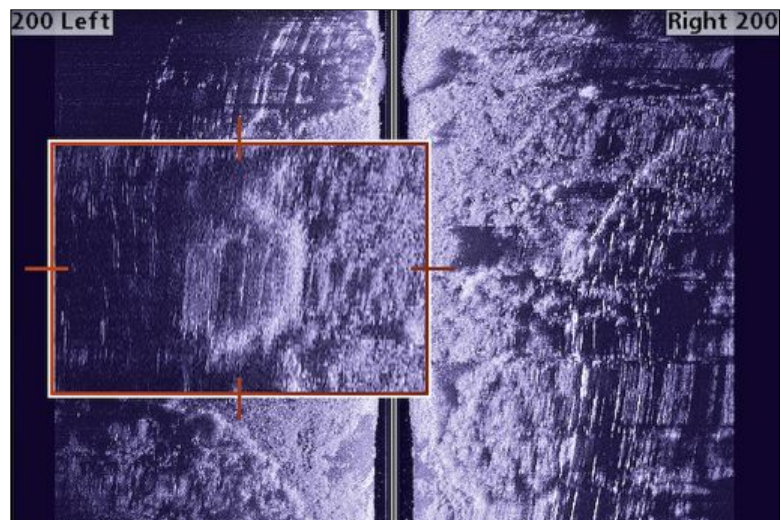
Identification: Feature

Size: Unknown

Location: St. Albans Bay

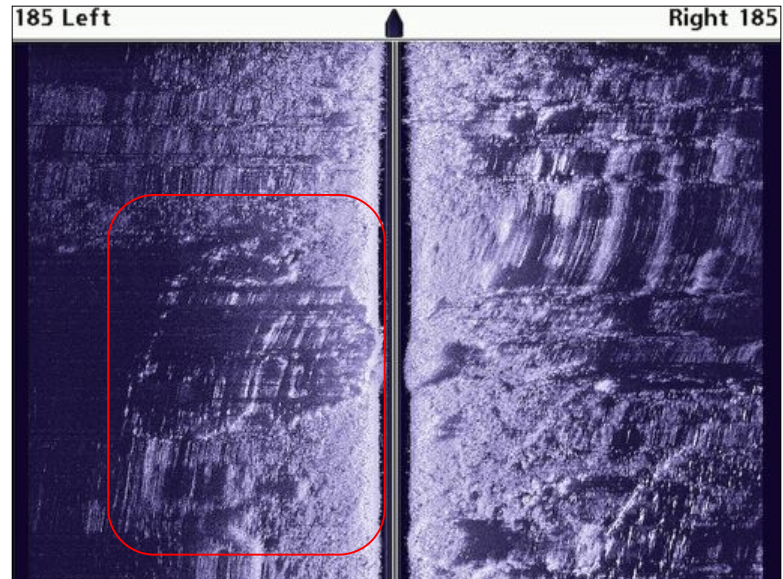
Analysis: Possible piling or sunken buoy



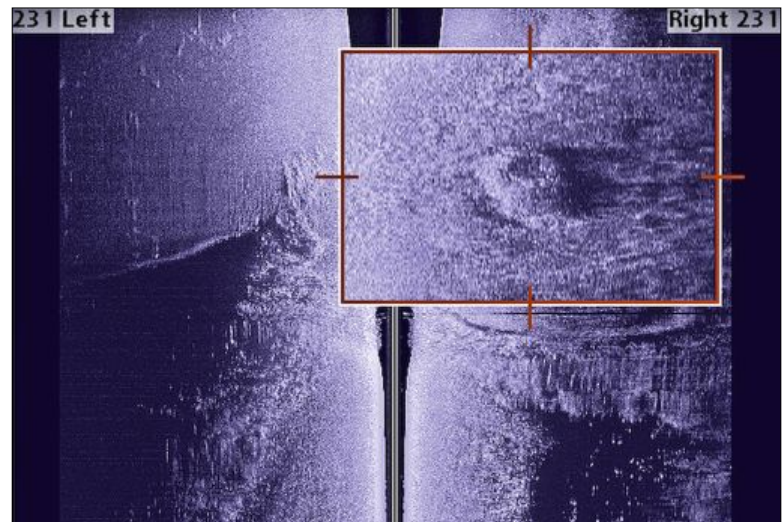
Anomaly 71**Recorded:** 9/23/2011**Identification:** Feature**Size:** Approximately 9 by 18 feet**Location:** St. Albans Bay**Analysis:** Unknown, but the anomaly might be partially buried**Anomaly 72****Recorded:** 9/20/2011**Identification:** Rectangular features with rounded ends**Size:** Approximately 28 by 52 feet**Location:** St. Albans Bay**Analysis:** Unknown**Anomaly 73****Recorded:** 9/20/2011**Identification:** Oblong feature**Size:** Approximately 23 feet long**Location:** St. Albans Bay**Analysis:** Unknown

Anomaly 74**Recorded:** 9/20/2011**Identification:** Rectangular feature**Size:** Approximately 72 feet long**Location:** St. Albans Bay

Analysis: The size of this anomaly suggest it may be the remains of the *Belle of Minnetonka*, the bottom of which was abandoned on the south shore of St. Albans Bay; aerial images indicate that this area was near the old shoreline that is now underwater – the white specks in the bottom right portion of the sonar image is the Excel Marina Dock

**Anomaly 75****Recorded:** 9/23/2011**Identification:** Round feature**Size:** Approximately 33 feet in diameter**Location:** Undisclosed

Analysis: This anomaly resembles a burial mound complete with a looter's pot hole; however, historic lake water levels suggest this identification is extremely unlikely (Scott Anfinson and Roberta Adams, pers. comm. March 2012); the feature may be dredge spoil dropped here from shoreline improvements



Recommendations

Maritime Heritage Minnesota has developed several specific suggestions for future maritime historical and nautical archaeological work in Lower Lake Minnetonka and Crystal Bay. They are listed below, the sites and anomalies prioritized in ascending order that MHM has determined to be the most significant, that could answer the most archaeological and historical questions, and by those that may be in danger.

- **1. St. Albans Bay Wreck (21-HE0400).** MHM is positive that the St. Albans Bay Wreck is a dredge boat; the sonar signature of the wreck is conclusive. However, documenting this wreck is a priority because of the fact that she is a dredge. The other identified wrecks in Lake Minnetonka represent public transportation (Streetcar Boats [whose construction details are known] and *Minneapolis*), an excursion boat (*George/Excelsior*), and a tug whose construction plans exist (*Hercules*). The St. Albans Bay Wreck represents a new Lake Minnetonka vessel type and therefore is a priority for documentation and wreck condition assessment.
- **2. Wreck 1 (21-HE0404).** The interesting sonar signature of Wreck 1 makes her a priority for further research. She really looks like a steam or gasoline launch but she could also be a large sailing vessel. Determining her type and actual size would pare down the possibilities in identifying her, particularly since no historical accounts exist of a boat of this size sinking at her current location.
- **3. Wayzata Bay Wreck (21-HE0401).** Determining the exact hull shape of the Wayzata Bay Wreck may allow MHM to determine her function and perhaps identify her; her large size limits the number of candidates. As with Wreck 1, there are no reports of a large vessel sinking or being scuttled in Wayzata Bay.
- **4. Anomaly 54.** MHM is confident that Anomaly 54 is a wreck and prioritizing her investigation will assist in determining her type and age – and possibly her identity.
- **5. Anomalies 1, 3, 4.** The sailing boat *Coquette/Eugene Mehl* was sunk in Crystal Bay behind the Hotel Lafayette sometime around 1884 (McGinnis 2010, 46). The size of Anomaly 4 is suggestive of the sailboat but Anomalies 1 and 3 may be her as well. The distinct nature of the sonar signatures of these anomalies make them a priority for investigation by MHM.
- **6. Anomaly 63.** MHM is moderately confident that Anomaly 63 is a sunken sailboat with a railing around her bow. However, her age cannot be determined and therefore, her status as an archaeological site cannot be settled.
- **7. Anomalies 10, 27, 28, 33.** Anomalies 10 and 28 appear to be overturned boats with their keels evident. The sonar signature of Anomaly 27 is strongly suggestive of a sailboat with her single mast still standing upright. The sonar image of Anomaly 33 suggests a wreck as well. These anomalies are of high priority. A sloop owned by George A. Brackett sank in 60 feet of water in 1894 north of Big Island; one of these anomalies may be that sloop. The best

candidate for this vessel is Anomaly 28 due to her proximity to the Big Island, as it was reported that one of the vessel's occupants was 600 feet from the island (McGinnis 279-280), and Anomaly 28 lies nearly in the same depth of water. Anomaly 10 may be the sloop but she is in considerably shallower water than the reported sinking, as is Anomaly 33. Anomaly 27 is probably a sailing boat, although her distance from Big Island indicates she may not be the Brackett sloop although she lies in the correct water depth. All four of these anomalies deserve priority investigation due to their sonar signatures whether they can be identified as the Brackett sloop or not.

- **8. Anomaly 15.** Anomaly 15 deserves priority attention because of its unique sonar signature that suggests a substantial object, possibly a barge, dredge, or other type of vessel.
- **9. Anomalies 5, 50.** Anomalies 5 and 50 appear as vague images but they are strikingly similar to the first image produced by MHM of the Wayzata Bay Wreck, and their shapes suggest sunken vessels.
- **10. *Minneapolis* (21-HE0403).** While the appearance during her working life and the history of the sidewheeler *Minneapolis* is well known, the archaeology of the wreck is a challenge. The first sonar images of the site recorded in 1996 determined that the boat broke up during the wrecking process and spread out over a large area, with at least one of the sidewheels separated from the wreck (Hall, Birk, and Newell 1997, 58). MHM's sonar images are difficult to interpret due to the depth of the wreck but there is no doubt that the *Minneapolis* site is interesting, she is the only sidewheeler wreck known to exist in Lake Minnetonka, and warrants a detailed examination.
- **11. Anomalies 12, 17.** These two small anomalies appear to be small boats and Anomaly 17 is particularly interesting because of the details evident in sonar image. The large number of anomalies that may be small boats is historically and archaeologically interesting for MHM, providing a greater number of locally-built watercraft to study – and to compare with the Moore and Ramaley boat designs.
- **12. *George/Excelsior* (21-HE0399).** As with *Minneapolis*, the history of sternwheeler *George/Excelsior* is known but the archaeology of the wreck is important because she is the only known sternwheeler wreck so far identified in Lake Minnetonka. There are no known plans of the vessel and a comparison of her construction to the Mississippi River sternwheeler wreck *Andy Gibson* would be interesting.
- **13. *Hercules* (21-HE0398), *Como* (21-HE0397), *Hopkins/Minnetonka* (21-HE0396), *White Bear* (21-HE0281).** MHM's plans for the TCRT tug wreck *Hercules* and the Streetcar Boat wrecks *Como*, *Hopkins/Minnetonka*, and *White Bear* lie in the realm of wreck condition assessments, monitoring, and public education due to the popularity of these sites with recreational divers. Beyond intentional criminal damage from looting, divers will locate the wrecks by snagging anchors on the hulls and causing damage. MHM does not seek to limit sport diving on the wrecks, but there are concerns for their safety due to

intentional and unintentional acts. Periodic assessments of the wrecks that result in site form updates to the OSA will track any changes to the wrecks over time and if extensive damage to these wrecks – or any others – occurs, alleviation of the causes of the damage will be pursued at that time.

- **14. Anomaly 26.** The interesting signature of Anomaly 26, whether it is the sunken steamboat *Rush* or something else, is a question MHM would like to answer. If Anomaly 26 is the *Rush*, this site will provide interesting data because of that vessel's unique stern sidewheel design.
- **15. Anomaly 22.** While the sonar image of Anomaly 22 suggests a hollowed-out log – a dug out canoe – it may well be a discarded piling or other long object. Investigating this anomaly would answer the question.
- **16. Anomalies 21, 24, 29, 31, 39, 43.** This series of anomalies resemble small boats, some overturned, but unlike Anomalies 10, 12, 17, 27, 28, and 33 their sonar signatures are not distinct. MHM would like to investigate these objects to determine their nature if they are small boats, to compare with the Moore and Ramaley boat designs.
- **17. Anomalies 8, 13, 14, 45, 51, 56, 58, 66.** In general, these anomalies are simply 'shaped like boats' – they may be boats or parts of boats, or they may be other types of debris that was dumped to the bottom of the lake, or they may be geological features. Diving on these anomalies to determine if they are wrecks will answer these questions.
- **18. Anomalies 2, 7.** Anomaly 2 could be part of a pontoon boat or another object entirely, while the shadow Anomaly 7 casts looks like a big chair, possibly an old life guard stand or a dive platform. The interesting sonar signatures of these two anomalies make them important, but not a priority.
- **19. Anomalies 19, 37, 40, 47.** This group of rectangular sonar images are not distinct enough to make them priority targets, but their investigation will answer the question of their natures.
- **20. Anomaly 75.** Anomaly 75 is probably not a submerged burial mound; the OSA has stated that there are no known mounds in this area and the Minnesota Geological Survey has confirmed that historic water levels would not have submerged this feature. Another simple explanation is that the mound is dredge spoil, dumped there by a dredge boat; MHM surmises it is human-made at any rate. Diving on Anomaly 75 may determine its nature.
- **21. Remaining 39 Anomalies.** The remaining 39 anomalies would be checked out when diving on other anomalies nearby or when the other anomalies have been completed. They are a low priority for MHM.

Conclusion

In order to investigate Lake Minnetonka's sites and anomalies MHM will design projects in the coming years to maximize data retrieval through the utilization of interested and dedicated volunteer divers. MHM staff, both qualified and licensed underwater archaeologists and divers, will instruct all volunteers on the proper procedures for wreck assessment, documentation, preservation, conservation, and dive safety. Several documentation tools will be used for this work including digital still photography, digital video, hands-on measurements, measured drawings, and triangulation – all dependent on the site being investigated. By including interested, ethical, and responsible volunteers in our projects, MHM hopes to educate a wider audience in the proper treatment of all Minnesota's finite underwater and nautical cultural resources – wrecks, maritime infrastructure, artifact clusters, and lone artifacts that can be found on the bottom of our lakes, rivers, and streams throughout the state.

Maritime Heritage Minnesota has yet to conduct a side and down imaging sonar survey of the remainder of Upper Lake Minnetonka, but that discrepancy will hopefully be alleviated soon. With this additional data, MHM will have a complete list of priority targets for nautical and underwater archaeological assessment and documentation. The list of anomalies set for investigation will undergo a basic Phase I documentation by MHM using SCUBA. This process will determine the nature of the anomalies – whether they are wreck sites, other types of sites, or naturally occurring features. From this work, MHM will produce an inventory of newly identified Lake Minnetonka archaeological sites and their basic components and vital statistics. This future work advocated by MHM is in keeping with the recommendations submitted to the SHPO in 1997 concerning the historical significance of Lake Minnetonka's wrecks – those known and unknown. It was determined that “each of the individual vessels [*Como*, *George/Excelsior*, *Hercules*, *Hopkins/Minnetonka*, *Minneapolis*, *White Bear*] are potentially eligible for nomination to the National Register of Historic Places under criteria A, C, and D. As a group, these vessels...form a strong and important submerged cultural resource. The historic shipwrecks in Lake Minnetonka may be the single most well-preserved group of excursion vessels in the United States” (Hall, Birk, and Newell 1997, 62). Beyond the excursion vessel classification, MHM has already identified two new types of vessels that expand the base of historic wrecks in Lake Minnetonka – a dredge boat and a gasoline or steam launch – and the function of the tug *Hercules* cannot be overlooked as well. Data collected by MHM will be used to develop a National Historic Shipwreck District (NHSD) nomination – a first for the State of Minnesota – and if appropriate, an State Underwater Archaeological Park. Lower Lake Minnetonka and Crystal Bay already contain enough rudimentarily identified and diverse wreck sites to justify further investigation and the NHSD nomination; researching the rest of the lake can only augment this data.

References

- Edgar, Randolph. 1984. *A Record of Old Boats*. Edited by Ward C. Burton, Harrison & Smith Co., Minneapolis, MN, 1933; Reprint, Excelsior-Lake Minnetonka Historical Society: Excelsior, MN.
- Excelsior Cottager*. 1896a, 18 September; 1896b, 13 November.
- Hall, Wes, Douglas Birk, and Sam Newell. 1997. *Shipwrecks of Minnesota's Inland Lakes and Rivers*. Prepared for the Minnesota State Historic Preservation Office by Mid-Atlantic Technology and Environmental Research, Inc.: Castle Hayne, NC.
- Hasse, Arlo. 1976. Legacy of the Native American in *Picturesque Minnetonka*. Excelsior-Lake Minnetonka Historical Society: Excelsior, MN, 2-5.
- Heffelfinger, Ruth. 1976. Discovery and Early Settlement of Picturesque Lake Minnetonka in *Picturesque Minnetonka*. Excelsior-Lake Minnetonka Historical Society: Excelsior, MN, 6-7.
- Kerm Stake Collection. Chanhassen, MN.
- Kunz, Virginia Brainard. 1982. *Minnetonka Yacht Club. Centennial 1882-1982*. Minnetonka Yacht Club Sailing School: Minnesota.
- Lake Minnetonka Scrapbook*. ND. M56, Minnesota Historical Society: St. Paul, MN.
- Maritime Heritage Minnesota Collection. St. Paul, MN.
- McGinnis, Scott. 2010. *A Directory of Old Boats*. Scott D. McGinnis: Chaska, MN.
- Merriman, Ann, and Christopher Olson. 2007. *Dig on This Archaeology Program Report*. Maritime Heritage Minnesota: St. Paul, MN.
- Meyer, Ellen Wilson. 1993. *Tales from Tonka*. Excelsior-Lake Minnetonka Historical Society: Excelsior, MN.
- Minneapolis Journal*. 1899, 10 September; 1901, 14 May; 1925, 26 March; 1921, 3 July.
- Minneapolis Morning Tribune*. 1912, 9 August.
- Minneapolis Sunday Tribune*. 1931, 19 April.
- Minneapolis Tribune*. 1899, 10 September.
- Minnetonka Herald*. 1954, 12 August.

Minnetonka Record. 1904, 17 June; 1906a, 4 May; 1906b, 13 July; 1906c, 20 July; 1906d, 3 August; 1906e, 10 August; 1907, 9 August; 1912a, 19 July; 1912b, 9 August; 1925, 25 December; 1928, 26 October.

Olson, Russell L. 1976. *The Electric Railways of Minnesota*. Minnesota Transportation Museum, Inc.: Hopkins, MN.

Schmitz, Iva B. 1976. First Abstract of Lands Minnetrista 1850's in *Picturesque Minnetonka*. Excelsior-Lake Minnetonka Historical Society: Excelsior, MN, 10-11.

State Historic Preservation Office. 1993, 18 September, 20 September. *Violation of Protected Shipwreck*. Documented by the Hennepin County Sheriff's Office. Shipwreck Files: St. Paul, MN.

Stubbs, R. Avery. 1976. Pioneer Life in *Picturesque Minnetonka*. Excelsior-Lake Minnetonka Historical Society: Excelsior, MN, 8-9.

Twin City Rapid Transit Company Records. Minnesota Historical Society: St. Paul, MN.

Wayzata Reporter. 1912, 14 November.

Wayzata Yacht Club. 2012. *WYC History*. Wayzata Yacht Club Web Site: www.wyc.org.

Wilson, Blanche Nichols. 1971. *Minnetonka Story*. Blanche Nichols Wilson, Excelsior, MN, 1950; Reprint, Ross & Haines, Inc.: Minneapolis, MN.